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Revealing more Secrets of Angkorean Tantrism & Other Essays on Khmer research

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Revealing more Secrets of Angkorean Tantrism

Dr Uday Dokras

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Chapter 1

The History of Buddhism in Cambodia

The history of Buddhism in Cambodia spans a number of successive kingdoms and empires. Buddhism entered Cambodia via two different streams. The earliest forms of Buddhism, along with Hindu influences, entered the Kingdom of Funan with Hindu merchants. In later history, a second stream of Buddhism entered Khmer culture during the Angkor empire when Cambodia absorbed the various Buddhist traditions of the Mon kingdoms of Dvaravati and Haripunchai.

For the first thousand years of Khmer history, Cambodia was ruled by a series of Hindu kings with an occasional Buddhist king, such as Jayavarman I of Funan, Jayavarman VII, who became a mahayanist, and Suryavarman I. A variety of Buddhist traditions co-existed peacefully throughout Cambodian lands, under the tolerant auspices of Hindu kings and the neighboring Mon-Theravada kingdoms.

Unconfirmed Sinhalese sources assert that missionaries of King Ashoka, introduced Buddhism into Southeast Asia, approximately in the 3rd century BC. Various Buddhist sects competed with Brahmanism and indigenous animistic religions over approximately the next millennium; during this period, Indian culture was highly influential

Funan

The Funan Kingdom that flourished between 100 BC and 500 CE was Hindu, with the kings of Funan sponsoring the worship of Vishnu and Shiva. Buddhism was already present in Funan as a secondary religion in this era. Buddhism began to assert its presence from about year 450 onward, and was observed by the Chinese traveler Yijing toward the close of the seventh century.

Two Buddhist monks from Funan, named Mandrasena and Saṃghabara, took up residency in China in the 5th to 6th centuries, and translated several Buddhist sūtras from Sanskrit into Chinese. Among these texts is the Mahāyāna *Mahāprajñāpāramitā Mañjuśrīparivarta Sūtra*. This text was separately translated by both monks. The bodhisattva Mañjuśrī is a prominent figure in this text.

Cambodian statue of Avalokiteśvara Bodhisattva. Sandstone, 7th century CE.

Chenla

The Kingdom of Chenla replaced Funan and endured from 500–700. Buddhism was weakened in the Chenla period, but survived, as seen in the inscriptions of Sambor Prei Kuk (626) and those of Siem Reap dealing with the erection of statues of Avalokiteśvara (791). Some pre-Angkorean statuary in the Mekong Delta region indicate the existence of Sanskrit-based Sarvāstivāda Buddhism.Khmer-style Buddha images are abundant from the period of 600–800. Many Mahāyāna bodhisattva images also date from this period, often found alongside the predominantly Hindu images of Shiva and Vishnu. An inscription from Ta Prohm temple in Siem Reap province, dated about 625, states, that the Buddha, Dharma and Sangha are flourishing.

Angkor

The transition from Hindu god-king to Mahayana bodhisattva-king was probably gradual and imperceptible. The prevailing Vaishnavite and Shaivite faith traditions gave way to the worship of the Gautama Buddha and the Bodhisattva Avalokitesvara.

The Buddhist Sailendra kingdom exercised suzerainty over Cambodia as a vassal state during the end of the eighth and the beginning of the ninth centuries. King Jayavarman II (802–869), the first real Khmer king of the Angkor Empire, proclaimed himself Hindu god-king and identified himself with Shiva. Nevertheless, he was increasingly friendly to and supportive of Mahayana Buddhist influence throughout his kingdom. Mahayana Buddhism became increasingly established in his empire. The form of Mahayana Buddhism that was propagated in the Srivijaya lands was similar to the Pala Dynasty Buddhism of Bengal, and of the Nalanda University in northern India.

The Bengal University of Nalanda in Megadha (now Bihar) was the theological center of Mahayana Buddhism under the protection of the Pala Dynasty [750-1060]. Shivaist interpretations of Buddhism, tinged with Tantric mysticism were worked out in Megadha and then were exported throughout insular and peninsular Southeast Asia, particularly to Java. Yashovarman I (889-910), who ruled from the vicinity of Rolous in the late ninth century, seems to have been a Shivite Buddhist influenced by Nalanda syncretism. His successors (notably Jayavarman IV) dedicated themselves to Hindu trinity such as Vishnu and Brahma, as well as to Shiva, with whom they continued to be identified by hereditary families of priests. Rajendravarman II studied Buddhism intensely.

The Sailendra dynasty also built the fantastic Mahayana Buddhist temple Borobudur (750–850) in Java. Borobudur appears to have been the inspiration for the later fabulous Angkor building projects in Cambodia, particularly Angkor Wat and Angkor Thom. A challenge of Hinduism accepted by the Buddhists.

Mahayana and Thervada

The primary form of Buddhism practiced in Cambodia during Angkor times was Mahayana Buddhism, strongly influenced with Tantric tendencies.

The prevalence of Tantrayana in Java, Sumatra and Cambodia, a fact now definitely established by modern researches into the character of Mahayana Buddhism and Saivism in these parts of the Indian Orient. Already in Kamboja inscription of the 9th century there is definite evidence of the teaching of Tantric texts at the court of Jayavarman II. In a Kamboja record of the 11th century there is a reference to the 'Tantras of the Paramis'; and images of Hevajra, definitely a tantric divinity, have been recovered from amidst the ruins of Angkor Thom. A number of Kamboja inscriptions refer to several kings who were initiated into the Great Secret (Vrah Guhya) by their Hindu Brahmin gurus; the Saiva records make obvious records to Tantric doctrines that had crept into Saivism.

Hevajra is one of the main yidams (enlightened beings) in Tantric, or Vajrayana Buddhism.[1] Hevajra's consort is Nairātmyā (Tibetan: bdag med ma).

India

The Hevajra Tantra, a yoginītantra of the *anuttarayogatantra* class, is believed to have originated between the late 8th (Snellgrove), and the late 9th or early 10th centuries (Davidson),[4] in Eastern India, possibly Kamarupa. Tāranātha lists Saroruha and Kampala (also known as "Lva-va-pā", "Kambhalī", and "Śrī-prabhada") as its "bringers":

.. the foremost yogi Virupa meditated on the path of Yamāri and attained siddhi under the blessings of Vajravārāhi,...His disciple Dombi Heruka..understood the essence of the Hevajra Tantra, and composed many śāstras like the *Nairātmā-devi-sādhana* and the *Sahaja-siddhi*. He also conferred abhiṣeka on his own disciples. After this, two ācāryas Lva-va-pā and Saroruha brought the Hevajra Tantra. ... Siddha Saroruha was the first to bring the *Hevajra-pitṛ-sādhana*.

Another lineage, mentioned by Jamgon Kongtrul, goes from Vilāśyavajra to Anangavajra to Saroruha and thence to Indrabhuti.

Jamgon Amyeshab, the 28th throne holder of Sakya, considers the Hevajra Tantra to have been revealed to Virupa by the Nirmanakaya Vajranairatma. This tantra is also considered by him to have been revealed to Dombhi Heruka, Virupa's senior disciple, by Nirmanakaya Vajranairatma, from whom the main Sakya exegetical lineage of the Hevajra tantra descends.

The *Yogaratnamālā*, arguably the most important of the commentaries on the Hevajratantra, was written by one Kṛṣṇa or Kāṇha, who taught Bhadrapada, another commentator, who in turn taught Tilopa, the teacher of Nāropa, who himself wrote a commentary. He, in turn, passed on his knowledge of this tantra to Marpa (1012-1097 AD), who also taught in Tibet. Marpa also received instruction in the Hevajratantra from Maitrīpa, alias Advayavajra, who was banished from Vikramashila for practicing with a yoginī during the time of Atīśa's abbothood.

Kanha was one of the authors of Charyapada.

Tibet

Hevajra and Nairatmyai. Tibet, 18th Century

Some time in the early 11th century, Drogmi Lotsawa Shākya Yeshe *('brog mi lo ts'a ba sh'akya ye shes)* (993-1077 AD) journeyed from Drompa-gyang in Lhatsé to Nepal and India,

including Vikramashila, where he received instruction in the Hevajratantra from Śānti-pa (Ratnākaraśānti) and later to Bengal, where he encountered Prajñedraruci (Vīravajra) [7] who instructed him in the "rootless Margapala" (Tib. *Lamdré*) that is particularly concerned with the Hevajra tantra and its commentaries. Drakpa Gyeltsen writes in his *Chronicle of the Indic Masters*:

Now Lachen [Drokmi] first went to Nepal and entered into the door of mantra through [the teacher] Bhāro Ham-thung. Then he went to India itself and, realizing that the Āchārya Ratnākaraśānti was both greatly renowned and learned, he heard extensively the Vinaya, *Prajñapāramitā*, and mantra. Then having gone to the eastern part of India, he encountered Bhikṣu Vīravajra, who was the greatest direct disciple of Durjayachandra, who himself had held the lineage of Āchārya Virūpa's own disciple, Ḍombiheruka. From Bhikṣu Vīravajra he heard extensively the mantra material of the three tantras of Hevajra, complete in all their branches. He also requested the many instruction manuals of *Acintyakrama* and so forth, so that he heard the "Lamdré without the fundamental text" (*rtsa med lam 'bras*) as well. In this way, Drokmi lived in India for twelve years and became a great translator.

After twelve years he returned to central Tibet, probably by 1030, translated the Hevajratantra into Tibetan, and taught, among others, Dkon mchog ryal po (1034-1102 AD), the founder of the Sa-skya Monastery in 1073 AD. This was the beginning of the close relationship between the Sakya Order and the Hevajratantra.

In the Blue Annals, Gos lotsawa suggests that both the Hevajra and the Kalachakra Tantras are commentaries on, or introductions to, the Guhyasamāja.

Other Countries

China

The Chinese version of the Hevajra Tantra (Taishō XVIII 892, p. 587-601) was translated by Fa-hu (Dharmapalā) at the Institute for Canonical Translations (Yi jing yuan) in the capital of the Northern Sung (960-1128 AD), Bian liang, present day Kaifeng in Henan province. The five-volume translation was presented to Emperor Jen-tsung at the end of Zhi he 1 (11 February 1054- 30 January 1055 AD) . However, the Hevajra Tantra did not become popular in China. The title of the Chinese version reads "The Scriptural Text of the Ritual of The Great King of the Teaching The Adamantine One with Great Compassion and Knowledge of the Void explained by the Buddha." The preface reads:

From among the 32 sections of the general tantra of Mahāmāyā one has taken 2 rituals with Nairātmyā. Dharmapāla, Great Master who transmits Sanskrit (texts), thoroughly illuminated and enlightened with Compassion, Probationary Senior Lord of Imperial Banquets, Grandee of Imperial Banquets with the Honour of Silver and Blue, Tripiṭaka from India in the West during the Sung, received the honour of translating it by Imperial Mandate.

Cambodia and Thailand

Surviving images indicate that the Hevajra Tantra was brought to Cambodia during the Khmer Empire and its practice thrived both in Cambodia and Thailand from the 10th to 13th centuries.[

Mongolia

In 1244 the grandson of Genghis Khan, Prince Godan, invited Sakya Pandita to Mongolia and was initiated by him into the Hevajra teachings. In 1253 Kublai Khan invited Sakya Pandita's Nephew Chogyal Phagpa to court. As a result, Buddhism was declared the state religion and Phagpa was given authority over three of Tibet's provinces.

The West

The Hevajra Tantra became the first major Buddhist Tantra to be translated in its entirety into a Western language when David Snellgrove published his *The Hevajra Tantra: A Critical Study* in 1959.[17] This work is in two volumes, the first volume containing his introduction including an "apology" explaining why such a text is worthy of study (apparently because of the unsavory reputation the tantras had acquired in the West early in the 20th century. Writing in 1959 he was able to say, "There is still a tendency to regard them as something corrupt, as belonging to the twilight of Buddhism."[18] The second volume contains his editions of the Sanskrit and Tibetan texts (the Tibetan text being taken from the snar thang Kengyur) as well as a Sanskrit text of the *Yogaratnamālā*. Another translation appeared in 1992 as *The Concealed Essence of the Hevajra-tantra.* by G.W. Farrow and I. Menon. This version contains the Sanskrit text and English translation of the tantra as well as a complete English translation of the *Yogaratnamālā*. An English translation from Fa-hu's Chinese version was made by Charles Willemen in 1983 and published as "The Chinese Hevajratantra". In 2008 the German scholar Jan-Ulrich Sobisch published a detailed literary history of Indian and Tibetan writings on Hevajra as it was seen through the eyes of A-mes-zhabs, a 17th-century master of the Sa-skya-pa tradition (Sobisch 2008).

Text: Originally written in mixed quality Sanskrit (with some verses in Apabhraṃśa), the present 750 verse text is reported to be but an excerpt or summary of a much larger, original text of up to 500,000 ślokas (verses) in 32 sections. Many Buddhist texts claim to be condensations of much larger missing originals, with most of the alleged originals either never having been found, or perhaps conceived of as "virtual" texts that exist permanently in some disembodied way. However, the existence of the 100,000 verse Prajnaparamita Sutra shows that works of such proportions were actually produced.

The Hevajra Tantra has some material in common with other sources: II iii 29 of the Hevajratantra is the same as XVI 59c-60b of the Guhyasamajatantra, and an Apabhraṃśa couplet at II v 67 of the Hevajratantra appears in one of Saraha's songs. In the case of the Guhyasamaja, it is safe to assume that the Hevajra version is later, but the case is not as clear cut with the Saraha quote, since the relative dates are harder to establish with any certainty.

Root Tantra

Hevajra mandala, 17th-century painting, Rubin Museum of Art RIGHT PIC Hevajra and Nairātmyā, surrounded by a retinue of eight ḍākinīs. Marpa transmission.

Dvātriṃśatkalpoddhṛtaḥ kalpadvayātmako śrīhevajraḍākinījālasamvaramahātantrarājā

- Manuscripts in the National Archives, Kathmandu, Nepal
  - No. 3-303.
  - No. 3-238.
  - No. 4-6.
  - No. 4-71.
- Manuscript in the Cambridge University Library, Add. 1340
- Manuscript belonging to the Asiatic Society of Bengal, no. 11317
- Manuscripts in the Tōkyō University Library: Nos 509-512[21]
- Editions:
  - Snellgrove
  - Farrow and Meno

Tibetan:

- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* - Narthang Kangyur, snar thang 369, vol. 80, rgyud (ka) 306b-351b
  - colophon: *rgyud kyi rgyal po sgyu ma'i brtag pa zhes bya ba brtag pa sum cu rtsa gnyis las phyung ba brtag pa gnyis kyi bdag nyid kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa'i rgyud kyi rgyal po chen po rdzogs so/ /rgya gar gyi mkhan po ga ya d+ha ra'i zhal snga*

nas dang/ bod kyi lo ts+tsha ba dge slong shAkya ye shes kyis bsgyur cing zhus te gtan la phab pa/

  - Edition: Snellgrove

- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* (Hevajratantrarājanāma) *Tōh. 417, sDe-dge Kangyur rgyud 'bum vol. nga, 1b-13b*
  - colophon: *kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa las rdo rje snying po mngon par byang chub zhes bya ba brtag pa'i rgyal po rdzogs so*
- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* Urga Kangyur, urga 418, vol.79, rgyud (nga), 1r-30r
  - colophon: *rgyud kyi rgyal po chen po sgyu ma'i brtag pa zhes bya ba brtag pa sum cu rtsa gnyis las phyung pa brtag pa gnyis kyi bdag nyid kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa'i rgyud kyi rgyal po rdzogs so/ /rgya gar gyi mkhan po ga ya d+ha ra'i zhal snga nas bod kyi lo ts+tsha ba dge slong shAkya ye shes kyis bsgyur cing zhus te gtan la phab pa/slar yang lo ts+tsha ba gzhon nu dpal gyis 'gyur chad bsabs shing dag par bgyis pa'o/*
- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* Stog Palace Kangyur, stog 379, Volume 94, rgyud bum (ga), 107r-148v
  - colophon: *rgyud kyi rgyal po sgyu ma'i brtag pa zhes bya ba brtag pa sum cu rtsa gnyis las phyung ba brtag pa gnyis kyi bdag nyid kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa'i rgyud kyi rgyal po chen po rdzogs so/ /rgya gar gyi mkhan po ga ya d+ha ra'i zhal snga nas dang/ bod kyi lo tsa ba dge slong shAkya ye shes kyis bsgyur cing zhus te gtan la phab pa*
- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* Lhasa Kangyur, lhasa 380, volume 79, rgyud (ka), 672-761
  - colophon: *rgyud kyi rgyal po sgyu ma'i brtag pa zhes bya ba brtag pa sum cu rtsa gnyis las phyung ba brtag pa gnyis kyi bdag nyid kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa'i rgyud kyi rgyal po chen po rdzogs so/ /rgya gar gyi mkhan po ga ya d+ha ra'i zhal snga nas bod kyi lo ts+tsha ba dge slong shAkya ye shes kyis bsgyur cing zhus te gtan la phab pa*

Commentaries

- *Yogaratnamālā* by Kāṇha
- *Śrīhevajravyākhyākhyāvivaraṇa* by Bhadrapāda
- *Netravibhanga* by Dharmakīrtī
- *Smṛtiniṣpatti* (?) by Kāṇha
- *Vajrapādasārasaṃgraha* by Nāro
- *Muktāvalī* by Ratnākaraśānti
  - Sanskrit edition from five manuscripts by Ram Shankar Tripathi and Thakur Sain Negi in the series Bibliotheca Indo-Tibetica Series XLVIII, Central Institute for Higher Tibetan Studies, Sarnath, 2001.
- *Padminī* by Saroruha
- *Suviśuddhasaṃpuṭa* by Ṭankadāsa
- *Ṣaṭsāhasrikā-Hevajra-Ṭīkā* by Daśabhūmīśvara Vajragharba
  - Sanskrit edition from two incomplete mss, Tibetan edition, with English translation of Sanskrit portion and summary of remaining part, in Shendge, Malati J.,

2004. *Ṣaṭsāhasrikā-Hevajra-Ṭīkā: A Critical Edition*. Pratibha Prakashan, Delhi. "On this shorter tantra of 750 verses containing many vajrapadas which is selected from abother big tantra of five lakhs (500,000) of verses, is revealed this commentary, which owes its inspiration to Hevajra and which is known to contain 6000 verses and following mulatantra, by the illustrious Vajragarbha." (1.4-6)

Explanatory Tantras

- *Ḍākinīvajrapañjaratantra*
- *Saṃpuṭatantra*

Jigdal Dagchen Rinpoche closes the Hevajra Mandala of colored sand using a gold dorje below statue of Sakya Pandita

Hevajra has four forms described in the Hevajra Tantra and four forms described the Samputa Tantra:

Hevajra Tantra

Kaya Hevajra

The two armed Body (Kaya) Hevajra described in the Hevajra Tantra stands in an advancing posture on a multi-coloured lotus, corpse, and sun disk. He is dark blue in colour. His right hand holds a vajra club, and his left hand holds a vajra-marked skull cup. He embraces his consort Vajranairatma *(rDo-rje bDag-med-ma)*. A khatvanga staff rests on his left shoulder and he is adorned with the six symbolic ornaments.

In the *Sadhanamala* this form of Hevajra is single *(ekavira)* - without a consort.

Vak Hevajra

The four armed Speech (Vak) Hevajra described in the Hevajra Tantra stands in an advancing posture on a multi-coloured lotus, corpse, and sun disk. He is dark blue in colour. One right hand holds a vajra and

one left hand a skull full of blood, the other pair of arms embrace his consort Vajravarahi *(rDo-rje phag-mo)*.

Citta Hevajra

The six armed Mind (Citta) Hevajra described in the Hevajra Tantra stands in an advancing posture with right leg extended and left bent on a multi-coloured lotus, corpse, and sun disk. He is dark blue in colour with three faces - C. blue, R. white and L. red. Each face has three blood shot eyes and four bared fangs, and frowns with knotted brows. His tawny hair streams up surmounted with a crossed vajra. Two right hands hold a vajra and a knife, two left a trident and a bell; the remaining pair of arms embrace his consort Vajrasrinkhala. Hevajra is imbued with the nine dramatic sentiments and adorned with a diadem of five dry skulls, a necklace of fifty fresh heads and the six symbolic ornaments or 'seals'.

Hrdaya Hevajra

The sixteen-armed, four-legged eight-faced Heart (Hrdaya) Hevajra described in the Hevajra Tantra stands with two legs in ardha-paryanka and the other two in alidha posture (left bent, right extended) on a multi-coloured eight petalled lotus, the four Maras in the forms of yellow Brahma, black Vishnu, white Shiva (Mahesvara) and yellow Indra and a sun disc resting on their hearts.

Sri Hevajra is 16 years old, black in color, naked, with eight faces, sixteen arms and four legs. His central face is black, the first right white, the first left red, the upper face smoke-coloured and ugly; the outer two faces on each side, black. All have three round blood shot eyes, four bared fangs, a vibrating tongue, and frowning with knotted brows. His lustrous tawny hair streams upward crowned with a crossed vajra. He is adorned with a diadem of five dry skulls. The sixteen hands hold sixteen skull cups. The central pair of arms skull contain a white elephant and the yellow earth-goddess Prithvi, and embrace his consort Vajranairatma *(rDo-rje bDag-med-ma)* whose two legs encircle his body. Her right hands holds a curved knife *(kartika)*, while the left is wrapped around the neck of her lord and holds a skullcup *(kapala)*. In the other seven skull cups held in Hevajra's outer right hands are: a blue horse, a white-nosed ass, a red ox, an ashen camel, a red human, a blue sarabha deer, and an owl or cat. In the skull cups in the outer seven left hands are the white water-god Varuna, the green wind-god Vayu, the red fire-god Agni / Tejas, the white moon god Chandra, the red sun god Surya or Aditya, blue Yama lord of death and yellow Kubera or Dhanada lord of wealth. Hevajra is adorned with the six symbolic ornaments: circlet, earrings, necklace, bracelets, girdle armlets and anklets and smeared with the ashes of the charnel ground. He wears a necklace of fifty freshly severed human heads.

Samputa Tantra

The four forms of Hevajra described in the Samputa Tantra all dance on a lotus, corpse, blood-filled skull cup and sun disk throne.

Kaya Hevajra

The two armed Kaya-Hevajra *(sku kyE rdo rje)* - "Shaker of all the Three Worlds" *('jig-rten gsum kun-tu bskyod-pa)* - stands in dancing posture on a multi-coloured lotus, corpse, blood-filled skull cup and sun disk. He is black in colour, with one face, three round red eyes, and two arms. His right hand wields a five pronged vajra club and the left hand holds a skull cup brimming with blood. He embraces his consort Vajranairatma *(rdo-rje bdag-med-ma)*, blue in colour, with one face and two arms, holding curved knife and skull cup.

Vak Hevajra

The four armed Vak-Hevajra *(sung kyE rdo rje)*, stands in dancing posture on a multi-coloured lotus, corpse, blood-filled skull cup and sun disk. He is black in colour with one face, three round red eyes two legs and four arms. The outer right hand wields a five pronged vajra club, the outer left hand holds a blood-filled skull-cup; the other pair of arms embrace his consort Vajravarahi *(rDo-rje phag-mo)*, who is similar to him.

Citta Hevajra

The six armed Citta-Hevajra *(thugs kyE rdo rje)* stands in dancing posture *(ardha paryanka)* with his right toenails pressed against his left thigh on an eight-petaled multi-coloured lotus, corpse, skull-cup brimming with blood, and sun disc. He is black, with three faces: black, white and red - each face having three round blood shot eyes. His light yellowish hair streams upwards crested with a crossed vajra, and he wears a diadem of five dry skulls. He is adorned with a necklace of fifty freshly severed human heads, the six symbolic ornaments and clad in a tiger skin skirt. The first pair of hands hold a vajra and bell embracing is consort Vajrasrnkhala, who is similar to him. The other right hands hold an arrow and a trident. The other left hands hold a bow and a skull cup.

Hrdaya Hevajra

The sixteen-armed, four-legged Hrdaya Hevajra *(snying po kyE rdo rje)* stands with two legs in dancing posture *(ardha paryanka)* and two in aleedha posture (right leg extended) on an eight-petalled multicoloured lotus are, the four Maras (Skanda Mara in the form of yellow Brahma, Klesa Mara as black Vishnu, Mrtyu Mara as white Shiva, Devaputra Mara as pale yellow Śakra), a blood filled skull-cup and sun disc. He is black in colour with eight faces, sixteen arms and four legs. The central face is black and laughing loudly, the right is white and the left is red, and the upper face black and bears its fangs; the other eight faces are black. Each face has three blod-shot eyes. His tawny hair flows upwards crested with a double vajra and he wears a diadem of five dry skulls. He is adorned with a necklace of fifty freshly severed human heads, the six symbolic ornaments and clad in a tiger skin skirt. His first pair of hands hold a vajra and bell, embracing his consort Nairatma blue in colour with two hands holding a curved knife (gri gug) and skull cup. Hevajra's remaining right hands hold a sword, arrow, wheel, skull cup, club, trident and hook; the remaining left hands hold a lotus, bow, trident, skull, jewel, threatening forefinger and noose.

Indonesian Esoteric Buddhism or **Esoteric Buddhism in Maritime Southeast Asia** refers to the traditions of Esoteric Buddhism found in Maritime Southeast Asia which emerged in the 7th century along the maritime trade routes and port cities of the Indonesian islands of Java and Sumatra as well as in Malaysia. These esoteric forms were spread by pilgrims and Tantric masters who received royal patronage from royal dynasties like the Sailendras and the Srivijaya.[1] This tradition was also linked by the maritime trade routes with Indian Vajrayana, Tantric Buddhism in Sinhala, Cham and Khmer lands and in China and Japan, to the extent that it is hard to separate them completely and it is better to speak of a complex of "Esoteric Buddhism of Mediaeval Maritime Asia." In many of the key South Asian port cities that saw the growth of Esoteric Buddhism, the tradition coexisted alongside Shaivism. Java under the Sailendras became a major center of Buddhism in the region, with monumental architecture such as Borobudur and Candi Sukuh. The capital of the Buddhist empire of Srivijaya in Palembang, Sumatra was another major center.The decline of Buddhist states and the rise of Islamic states in the region during the 13th-16th centuries saw the steep decline of this tradition.

13th century Javanese statue of Prajnaparamita, from the Cungkup Putri ruins near Singhasari temple.RIGHT A painting by G.B. Hooijer (c. 1916—1919) reconstructing the scene of Borobudur during its heyday

The diffusion of Esoteric Buddhism in the region began with the arrival of Indian Buddhist monks in the 7th century. These include the central Indian Atikuta (fl. 650s), the Chinese Punyodaya (fl 650s), Yijing (635-713), the South Indian Dharmaruci/Bodhiruci (d. 727), Nagabodhi, Vajrabodhi and Bianhong (the 8th century teacher of Kukai). The Chinese Buddhist monk Yijing reports that in the 7th century there was a Buddhist center in Java named Kalinga (Heling) to which Chinese monks traveled in order to study.

Another source of this Indonesian Tantric tradition was from Sri Lanka's Abhayagiri vihāra, a well known center of Vajrayana study and practice, which even established a branch monastery in Central Java in the 8th century with Sailendra patronage.

A stronghold of Esoteric Buddhism, the empire of Srivijaya (650 CE–1377 CE) patronized Buddhist monks and institutions and thus attracted pilgrims and scholars from other parts of Asia.[7] These included the Chinese monk Yijing, who made several lengthy visits to Sumatra on his way to study at Nalanda University in India in 671 and 695, and the Bengali Buddhist scholar Atisha (982-1054 CE) who played a major role in the development of Vajrayana Buddhism in Tibet. Yijing praised the high level of Buddhist scholarship in Srivijaya and advised Chinese monks to study there prior to making the journey to the great institution of learning, Nalanda Vihara, India. He wrote:

In the fortified city of Bhoga, Buddhist priests number more than 1,000, whose minds are bent on learning and good practice. They investigate and study all the subjects that exist just as in India; the rules and ceremonies are not at all different. If a Chinese priest wishes to go to the West in order to hear and read the original scriptures, he had better stay here one or two years and practice the proper rules.

Yijing was also responsible for the translation of a large numbers of Buddhist scriptures from Sanskrit into Chinese. He translated more than 60 sutras into Chinese such as the Golden Light Sutra. The *Account of Buddhism sent from the South Seas* & *Buddhist Monks Pilgrimage of Tang Dynasty* are two of Yi Jing's best travel diaries, describing his adventurous journey to Srivijaya and India, the society of India and the lifestyles of various local peoples.

In Java, the 8th century Shailendra dynasty promoted large scale Buddhist building projects such as Borobudur. Later central Javanese bronze and silver Buddhist images show Tantric themes such as mandalas and the Five Tathagatas

In the 13th century Buddhism thrived in Eastern Java, the Singhasari kingdom of King Kertanegara of Singhasari patronized Vajrayana. Buddhism continued to thrive under the Hindu-Buddhist Majapahit Empire (1293–1527). Their capital Trowulan had many annual festivities for Buddhism, Shaivism,

and Vaishnavism. Some of their kings were Vajrayana practitioners, such as King Adityawarman (1347–79) whose inscriptions state he was "always concentrated on Hevajra". A feature of Javanese Buddhism was the deification and worship of kings as Buddhas or Bodhisattvas. Important Buddhist deities included Prajnaparamita, Tara, Bhairava and Lokesvara.

The fall of Majapahit and the rise of Muslim states such as the Sultanate of Malacca saw the decline of Buddhism in the region. Many fled to the island of Bali after the end of Majapahit rule, where Buddhism was merged into Balinese Hinduism. This process of merging Buddhism and Hinduism predated the fall of the Majapahit however, and many textual sources from the later Hindu-Buddhist kingdom state that Hinduism and Buddhism are both two paths to the same reality and also equate the five Buddhas with five forms of Shiva. Likewise, some Majapahit temples depict both Buddhist and Shaiva elements.

The oldest extant esoteric Buddhist Mantranaya literature in Old Javanese, a language significantly influenced by Sanskrit, is enshrined in the *San Hyan Kamahayanikan* (possibly 8th century). The *San Hyan Kamahayanikan* claims that its teachings come from Dignaga.

The Tibetan Buddhist canon includes translations of texts written by Javanese masters, such as the *Durbodhaloka* (a commentary on the Abhisamayalamkara) of Suvarnadvipa Dharmakīrti.

Another work by an Indonesian Tantric Buddhist is Bianhong's *Ritual Manual for Initiation into the Great Mandala of the Usnisa-Cakravartin* which survives in the Chinese Taisho Tripitaka (T. 959).The Japanese master Kukai wrote a biography of Bianhong.

Architecture

Bahal temple I, in Padang Lawas, North Sumatra. One of the remnants of Pannai Kingdom.

Borobudur Stupas./The statue of Dhyani Buddha Vairocana, Avalokitesvara, and Vajrapani inside the Mendut temple

Various unique forms of Buddhist architecture developed in Indonesia and Malaysia the most common of which is the stone Candi which shows Indic influences as has been interpreted as a symbol of Mount Meru.

The Sailendras built many Buddhist structures in Java, including the massive stupa of Borobodur, as well as Candi Sukuh, Candi Mendut, Candi Kalasan and Candi Sewu. The Srivijayans also built Buddhist temple complexes in Sumatra, such as Muara Takus and Bahal temple and also in the Malay Peninsula, such as in their regional capital at Chaiya.[18] Majapahit also built Candis, such as Jabung, and Penataran.

Other architecture types include *punden*, small terraced sanctuaries built on mountains and *pertapaan*, hermitages built on mountain slopes.

Borobodur

The largest Buddhist stupa in the world is the 9th-century complex at Borobudur in central Java, built as a Mandala, a giant three-dimensional representation of Esoteric Buddhist cosmology. The temple shows Indian and local influences and is decorated with 2,672 relief panels and 504 Buddha statues. The reliefs depict stories from the Lalitavistara Sutra, Jataka tales and the Gandavyuha sutra.

Borobudur was abandoned sometime in the classic period, whether caused by human activity; of war or political turmoil, or natural disasters, as it lies on a volcanic plain of Merapi and other active volcanoes in central Java. There is no mention of Borobudur in any of Majapahit sources, implies that this structure already forgotten in the last classic-period. A major restoration project was undertaken between 1975 and 1982 by the Indonesian government and UNESCO and the monument is now a World Heritage Site. It is the most visited tourist attraction in Indonesia and it is still used by Buddhists for pilgrimage.

Candi Sukuh

Candi Sukuh is a fifteenth-century Javanese-Hindu-Buddhist temple (candi) that demonstrates strong tantric influence. Candi Sukuh is located on the western slope of Mount Lawu (elev. 910 m or 3,000 feet (910 m) above sea level) on the border between Central and East Java provinces. The monument was built around 1437, as written as a chronogram date on the western gate, meaning that the area was under the rule of the Majapahit Kingdom during its end (1293–1500). The distinctive Dancing Ganesha relief in Candi Sukuh has a similarity with the Tantric ritual found in the history of Buddhism in Tibet written by Taranatha. The Tantric ritual is associated with several figures, one of whom is described as the "King of Dogs" (Sanskrit: Kukuraja), the mahasiddha who taught his disciples by day, and by night performed *Ganacakra* in a burial ground or charnel ground. Importantly, Ganesha also appears in Buddhism, not only in the form of the Buddhist god *Vināyaka*, but also portrayed as a Hindu demon form also called *Vināyaka*. Ganesha's image may be found on Buddhist sculptures of the late Gupta period. As the Buddhist god *Vināyaka*, Ganesha is often shown dancing, a form called Nṛtta Ganapati that was popular in North India and adopted in Nepal and then into Tibet.

Hevajra in Cambodia: Hevajra may be a populatr diety in Tibet but a multiarmed form of Hevajra, but without his female consort, is found in Cambodia and Thailand. Tibet is where he belongs to the *yi-dam* (tutelary, or guardian, deity) class. His worship is the subject of the *Hevajra Tantra,* a scripture that helped bring about the conversion of the Mongol emperor Kublai Khan (1215–94).

Hevajra united with his female consort; Lamaist bronze, early 19th century; in the Rijksmuseum voor Volkenkunde, Leiden, Neth.
Rijksmuseum voor Volkenkunde, Leiden, Netherlands

Hevajra is represented in art as blue in colour, with a headdress of skull crowns topped by a figure of the buddha Akshobhya. He is characteristically shown with 8 heads, 4 legs, and 16 arms. The arms on the left hold skull cups containing various divinities, the ones on the right their steeds. The term *Hevajra* is a

name of the central male deity of the *maṇḍala* described in the text of that name, the *Hevajra Tantra*. The image of Hevajra, which is an idealized image of a yogin, has arisen due to a tradition and also the associated textual and ritual practices, originated among the communities of renunciants, who constituted what might be termed the "*siddha* movement" and who from the eighth century onward were an important influence on the development Buddhist Tantric traditions.

The *Hevajra Tantra*, while a Buddhist scripture with identifiably Buddhist elements, was heavily influenced by this movement. Composed by the late eighth century, the *Hevajra Tantra* exhibits the charnel-ground culture of the *siddha* movement, with its emphasis on transgressive practices, particularly in the areas of sexuality and food consumption. Classified as a *"Yoginī"* or "Mother" Tantra, it also places great emphasis upon female deities, although it is arguable to what extent, if any, this translated into increased respect for women. Like most Tantras, the majority of the text deals with ritual, with great focus placed upon magical rites employing *mantras*, often for worldly purposes such as affecting the weather. It is also noticeable for its employment of songs written in the Apabraṃśa dialect, as well as its prescription of a "coded language" (*sandhyā-bhāṣā*) for use by yogins and *yoginīs* in their Tantric feasts. This has been a topic of great interest for scholars, past and present. In traditional Indian and Tibetan Buddhist contexts, the *Hevajra Tantra* played an important role in the development of Tantric hermeneutics, and it thus made an important contribution to Buddhist scholarship from the ninth century onward. This "coded language," which has been previously translated as "twilight language," has also been a serious object of study since the mid-twentieth century, and its interpretation has inspired some controversy.

The *Hevajra Tantra* and its ritual and meditative traditions focus upon a *maṇḍala* as its central iconographic feature. The *maṇḍala* also functions as the premier site for its ritual practices, such as consecration (*abhiṣeka*) ceremonies, and its meditative practice, since many meditations in the tradition require that the adept either visualize himself or herself within the *maṇḍala*, or view the *maṇḍala* as existing within his or her body. While there are many different types of *Hevajra maṇḍalas*, probably the best-known version is the relatively simple "skull cup–bearing" (*kapāladharin*) *maṇḍala*, so called because it centers upon Kapāladharī Hevajra, who in this form has sixteen arms, each of which holds a skull cup. He is depicted as being in sexual union with his consort, Nairātmyā. They are in turn surrounded by a circle of eight *yoginīs* : Gaurī, Śavarī, Caurī, Caṇḍalī, Vetālī, Ḍombinī, Ghasmarī, and Pukkasī. Because the central deity couple are said to be "nondual," it is described as being a nine-deity *maṇḍala*.

The Hevajra tradition is particularly noted for its theory of the four joys (*caturānanda*) achieved via sexual union in the context of Perfection Stage meditation practices that involve focused attention upon the subtle body, and the manipulation of "winds" of vital energy and "drops" of subtle sexual fluids within this body's channels. Of greatest importance is the fourth of these, the "natural joy" (*sahajānanda*). The concept of the "natural" *sahaja* state became an important element in the discourse of the *siddha* movement in India, and it has retained its significance to this day among communities of Tantric Buddhists, particularly in Nepal, Tibet, Mongolia, and elsewhere in the diaspora.

The *Hevajra Tantra* was translated into Chinese by Dharmapāla (963–1058) in 1055 ce, but like other Buddhist Tantras that were translated into Chinese at this time, its practice does not appear to have taken root in China. It was, however, successfully transmitted to Tibet. It was one of the central teachings that the Tibetan scholar Mar pa (Marpa, 1002/12–1096) received from the Indian saint Nāropa (c. 966–1040), and Mar pa in turn passed it on to his famous disciple Mi la ras pa (Milarepa, 1028/40–1111/23), whose disciples would found the Bka' brgyud (Kagyu) orders of Tibetan Buddhism, which continue to transmit the *Hevajra* tradition as one of their central teachings. It was also transmitted to Tibet by one of Mar pa's contemporaries, the translator-scholar 'Brog mi (Dok-mi, 992–1072), who studied at Vikramaśila in Northeast India with Ratnākaraśānti (c. eleventh century). He in turn instructed Dkon mchog rgyal po (Könchog Gyalpo, 1034–1102), one of the founders of the Sa skya (Sakya) school of Tibetan Buddhism.

The *Hevajra Tantra* would become one of the central teachings of the Sa skya school, and it provides the basis for its "Path and Fruit" (*lam 'bras*) system of Perfection Stage yoga.

The Sa skya school also played an essential role in the dissemination of Buddhism to the Mongols. During the Yuan dynasty, the Mongols achieved hegemony over Tibet and appointed the Tibetan Sa skya Paṇḍita (Sakya Paṇḍita, 1182–1251) to be their governor of Tibet in 1249. His nephew, the Sa skya lama 'Phags pa (Pakpa, 1235–1280), became a friend and advisor of Kublai Khan (1216–1294). Tibetan interactions with the Mongols continued for centuries following the collapse of the Yuan dynasty in 1368 ce, and the *Hevajra Tantra* was among the many texts and traditions successfully transmitted to the Mongols.

Four Vajra-Deities

Indonesia, East Java, Nganjuk, Chandi Reja; late 10th - early 11th century
Copper alloy
Each, approx., H. 3 1/4 in. (8.3 cm)
Mr. and Mrs. John D. Rockefeller 3rd Collection of Asian Art
1979.087.1-4

These four deities from a large set of small bronze sculptures discovered in 1913 in the village of Chandi Reja in East Java illustrate the importance of Vajrayana (Esoteric) Buddhism in Java. The figures were once part of a larger set of perhaps as many as ninety sculptures that formed a three-dimensional mandala, or cosmic diagram. Scholars generally agree that these sculptures were part of a Diamond Realm (*Vajradhatu*) mandala. In Vajrayana Buddhist thought, mastery of both the Diamond Realm, which symbolizes wisdom, and the Womb Realm (*Garbhadhatu*), which symbolizes practice, is necessary in order to achieve enlightenment. The small size of these figures suggests that they were placed in the outer rings of the mandala, where they functioned as attendants for the more important deities in the inner part. The crowns and jewelry are different for each deity as are the objects they hold in their hands.

Nairatmya, Central Tibet, sixteenth century. Gilt copper inset with turquoise, painted with red pigment, H9.25 in. (23.5 cm). Los Angeles County Museum of Art, From the Nasli and Alice Heeramaneck Collection, purchase, M.70.1.4. Nairatmya represented as a seated yogini, her face ablaze with all-seeing wisdom.

Nairātmyā or **Dagmema** (Wylie: *bdag med ma*) is a yoginī in Buddhism, the consort of Hevajra in the Hevajra-tantra. The name means "she who has no self (ātman)". Nair-ātmyā is the feminine form of nairātmya which comes from nirātman (the Sanskrit negative particle "niḥ" combined with the masculine noun for self-"ātman"); nairātmya means "of nirātman", and in the feminine form, nairātmyā, "she who

has no self". Nair-ātmyā, the no-self female, that is, she who has no self. She is an embodiment of the Buddhist philosophical concept of anātman (anatta in Pāli).

Hevajra, c. 1200. Cambodia, reign of Jayavarman 7th. Bronze. Overall: 46 × 23.9 cm (18 1/16 × 9 3/8 in.). Cleveland Museum of Art, Gift of Maxeen and John Flower in honor of Dr. Stanislaw Czuma 2011.143.

There is also a presence of Hevajra and other tantric deities at Angkor. These have been the subject of much speculation, and art historians in particular have done much to locate these deities in Angkor's religious world. There continue to be many different hypotheses, but none, as far as I can tell, present an explanation of the extent of tantric practice. Perhaps these deities were understood much as bodhisattvas mentioned above, powerful and wise deities to be invoked for merit, material benefit, and (for some) to be internalized as components of consciousness.

Chapter 2

Royal cults to integrate subordinates with the center(in SE Asian Countires)

Our knowledge of the ancient world has been radically altered by impressive archaeological discoveries over the last two centuries. Prior to the twentieth century, for instance, historians believed that India's history began in the second millennium BCE, when a people known as In-do-Aryans migrated into the Indian subcontinent and created a new civilization. Yet, even during the nineteenth century British explorers and officials were curious about brick mounds dotting the landscape of northwest India, where Pakistan is today. A large one was located in a village named Harappa. A British army engineer, Sir Alexander Cunningham, sensed its importance because he also found other artifacts among the bricks, such as a seal with an inscription. He was, therefore, quite dismayed that railway contractors were pilfering these bricks for ballast. When he became the director of Great Britain's Archaeological Survey in 1872, he ordered protection for these ruins. But the excavation of Harappa did not begin until 1920, and neither the Archaeological Survey nor Indian archaeologists understood their significance until this time. Harappa, it turned out, was an an-cient city dating back to the third millennium BCE, and only one part of a much larger civilization sprawling over northwest India. With the discovery of this lost civilization, the timeline for India's history was pushed back over one thousand years.

Figure 3.1 | Archaeological Site for Harappa | Excavation of this ancient city began in 1920.
Author: Hassan Nasir
Source: Wikimedia Commons
License: CC BY-SA 3.0

The Indus Valley civilization (2600 – 1700 BCE) now stands at the beginning of India's long history. Much like the states of ancient Mesopotamia and Egypt, the foundations for that history were established by Paleo-lithic foragers who migrated to and populated the region, and then Neolithic agriculturalists who settled into villages. During the third millennium BCE, building on these foundations, urban centers emerged along the Indus River, along with other elements that contribute to making a civilization.

This civilization, however, faded away by 1700 BCE, and was followed by a new stage in India's history. While it declined, India saw waves of migration from the mountainous northwest, by a people who referred to themselves as Aryans. The Aryans brought a distinctive language and way of life to the northern half of India and, after first migrating into the Punjab and Indus Valley, pushed east along the Ganges River and settled down into a life of farming and pastoralism. As they interacted with indigenous peoples, a new period in India's history took shape. That period is known as the Vedic Age (1700 – 600 BCE).

During the long course of the Vedic Age, states formed in northern India. The surplus from farming and pastoralism allowed people to engage in a multitude of other occupations and made for a lively trade. Villages thus grew in number and some became towns. Consequently, there was a need for greater leadership, something that was provided by chieftains of the many Aryan clans. Over time, higher levels of political organization developed, and these chieftains became kings or the leaders of clan assemblies. By the end of the Vedic Age, northern India was divided up by sixteen major kingdoms and oligarchies.

The ensuing three centuries (c. 600 – 321 BCE) were a time of transition. These states fought with each other over territory. The most successful state was the one that could most effectively administer its land, mobilize its resources and, by so doing, field the largest armies. That state was the kingdom of Magadha which, by the fourth century BCE, had gained control of much of northern India along the Ganges River.

In 321 BCE, the last king of Magadha was overthrown by one of his subjects, Chandragupta Maurya, and a new period in India's history began. Through war and diplomacy, he and his two successors established control over most of India, forging the first major empire in the history of South Asia: the Mauryan Empire (321 – 184 BCE). Chandragupta's grandson, King Ashoka, ended the military conquests and sought to rule his land through Buddhist principles of non-violence and tolerance. But after his time, the empire rapidly declined, and India entered a new stage in its history.

After the Mauryan Empire fell, no one major power held control over a substantial part of India for five hundred years. Rather, from c. 200 BCE to 300 CE, India saw a fairly rapid turnover of numerous, regional kingdoms. Some of these were located in northern India, along the Ganges River, but others grew up in the south—the Indian Peninsula—for the first time. Also, some kingdoms emerged through foreign conquest. Outsiders in Central Asia and the Middle East saw India as a place of much wealth, and sought to plunder or rule it. Thus, throughout its history, India was repeatedly invaded by conquerors coming through mountain passes in the northwest. Many of these, like King Kanishka of the Kushan Empire (c. 100 CE), established notable kingdoms that extended from India into these neighboring regions from which they came.

Even after 300 CE and up to the fifteenth century, India was never again unified for any length of time by one large empire. For that reason, historians highlight those kingdoms that became substantial regional powers and contributed in other important ways to

India's civilization. The period 300 – 600 CE, for instance, is often referred to as the Gupta Period and Classical Age. The Guptas (c. 320 – 550) were rulers who forged an impressive empire in northern India. As their empire flourished, Indian intellectuals were also setting standards for excellence in the fields of art, architecture, literature, and science, in part because of Gupta patronage. But important kingdoms also developed in south India.

The last period covered in this chapter is early medieval India (c. 600 – 1300 CE). After the Gupta Empire, and during the following seven centuries, the pattern of fragmentation intensified, as numerous regional kingdoms large and small frequently turned over. Confronting such an unstable and fluid political scene, medieval kings granted land to loyal subordinate rulers and high officers of their courts. The resulting political and economic pattern is referred to as Indian feudalism. Also, kings put their greatness on display by waging war and building magnificent Hindu temples in their capital cities. And, during the medieval period, a new political and religious force entered the Indian scene, when Muslim Arab and Turkic traders and conquerors arrived on the subcontinent.

This overview briefly summarizes major periods in India's political history. But the history of a civilization consists of more than just rulers and states, which is why historians also pay close attention to social, cultural, and economic life every step of the way. This attention is especially important for India.

Although the Asian subcontinent sees a long succession of kingdoms and empires and was usually divided up by several at any particular point in its history, peoples over time came to share some things in common. Socially, the peoples of India were largely organized by the caste system. Culturally, the peoples of India shared in the development of Hinduism and Buddhism, two major religious traditions that shaped people's understanding of the world and their place in it. Finally, throughout the ancient and medieval periods, India flourished as a civilization because of its dynamic economy. The peoples of India shared in that too, and that meant they were linked in networks of trade and exchange not only with other parts of South Asia but also with neighboring regions of the Afro-Eurasian world.

***Āryāvarta** (Sanskrit: आर्यावर्त, lit. "Land of the Aryans"), is a term for the Indian subcontinent along with some other parts in the ancient Hindu texts such as Dharmashastras and Sutras, referring to the area of the Indian subcontinent settled by Indo-Aryan tribes and where Indo-Aryan religion and rituals predominated. The limits of Āryāvarta extended over time, as reflected in the various sources, as the influence of the Brahmanical ideology spread eastwards in post-Vedic times.*

***Ganges-Yamuna** boundaries*

The Ganges-Yamuna doab.// Course of the Ganges river; Ganges-Yamuna doab western part of the green area.

The Baudhayana Dharmasutra (BDS) 1.1.2.10 (perhaps compiled in the 8th to 6th centuries BCE) declares that Āryāvarta is the land that lies west of Kālakavana, east of Adarsana, south of the Himalayas and north of the Vindhyas, but in BDS 1.1.2.11 Āryāvarta is confined to the doab of the Ganges-Yamuna. BDS 1.1.2.13-15 considers people from beyond this area as of mixed origin, and hence not worthy of emulation by the Aryans. Some sutras recommend expiatory acts for those who have crossed the boundaries of Aryavarta. Baudhayana Srautasutra recommends this for those who have crossed the boundaries of Aryavarta and ventured into far away places.

The Vasistha Dharma Sutra (oldest sutras ca. 500–300 BCE) I.8-9 and 12-13 locates the Āryāvarta to the east of the disappearance of the Sarasvati River in the desert, to the west of the Kālakavana, to the north of the Pariyatra Mountains and the Vindhya Range and to the south of the Himalayas

Patanjali's Mahābhāṣya (mid 2nd century BCE) defines Āryāvarta like the Vasistha Dharmasutra. According to Bronkhost, he "situates it essentially in the Ganges plan, between the Thar desert in the west and the confluence of the rivers Ganges (Ganga) and Jumna (Yamuna) in the east."

From sea to sea

*Scholars regard Hinduism as a **fusion or synthesis of various Indian cultures and traditions**, with diverse roots and no founder. This " Hindu synthesis " started to develop between 500 BCE and 300 CE, after the end of the Vedic period (1500 BCE to 500 BCE), and flourished in the medieval period, with the decline of Buddhism in India.*

The Manusmṛti (dated between 2nd cent. BCE to 3rd cent. CE) (2.22) gives the name to "the tract between the Himalaya and the Vindhya ranges, from the Eastern Sea (Bay of Bengal) to the Western Sea (Arabian Sea)".

The Manava Dharmasastra (ca.150-250 CE) gives aryavarta as stretching from the eastern

to the western seas, reflecting the growing sphere of influence of the Brahmanical ideology.

Loss of northwest India

The post-Vedic period of the Second Urbanisation saw a decline of Brahmanism. With the growth of cities, which threatened the income and patronage of the rural Brahmins; the rise of Buddhism; and the Indian campaign of Alexander the Great (327-325 BCE), the rise of the Mauryan Empire (322-185 BCE), and the Saka invasions and rule of northwestern India (2nd c. BC - 4th c. CE), Brahmanism faced a grave threat to its existence.

The decline of Brahmanism was overcome by providing new services and incorporating the non-Vedic Indo-Aryan religious heritage of the eastern Ganges plain and local religious traditions, giving rise to the Hindu synthesis.

These texts also identify other parts of the Indian subcontinent with specific designations. The Manusmṛti mentions Brahmavarta as the region between the rivers Saraswati and Drishadwati in north-western India. The text defines the area as the place where the "good" people are born, with "goodness" being dependent on location rather than behaviour. The precise location and size of the region has been the subject of academic uncertainty. Some scholars, such as the archaeologists Bridget and Raymond Allchin, believe the term Brahmavarta to be synonymous with the Aryavarta region.

Madhyadesa extended from the upper reaches of the Ganga and the Yamuna to the confluence of the two rivers at Prayaga, and was the region where, during the time of the Mahajanapadas, the Kurus and the Panchalas existed. The entire region is considered sacred in the Hindu mythology as gods and heroes mentioned in the two epics, the Ramayana and Mahabharata, lived here.

The Gupta Empire (fourth–fifth centuries ad) succeeded in subjugating a series of local forest chiefs and tribal territories. The Allahabad prashasti not only enumerates the conquests of the Gupta king Samudragupta, but also lays out the hierarchy of the kings equal in status and such as were subordinate to him, in his eyes. The political integration of dispersed political elements under the Guptas was linked with the changing contours of the Gupta authority in central India, on the one hand, and the process of transition from pre-state to state-society, on the other. This process is studied here mainly on the basis of epigraphic evidence. 1

The Gupta and early medieval centuries were marked by the horizontal spread of state societies, largely into areas with little prior experience of organised state activity. The emergence of the atavikarajyas and Pulindaraja rashtra in Central India shed light on local state formation in tribal areas and their movement towards complex society. The Maitrakas of Gujarat, the Vakattakas of Maharashtra, Kadambas of Karnataka, Pallavas of Tamil Nadu, Vishnukundins of Andhra, Sarabhapuriyas of Chattisgarh and the Hill states of Punjab provide good examples of state formation and the extension of state society at the local and translocal levels.

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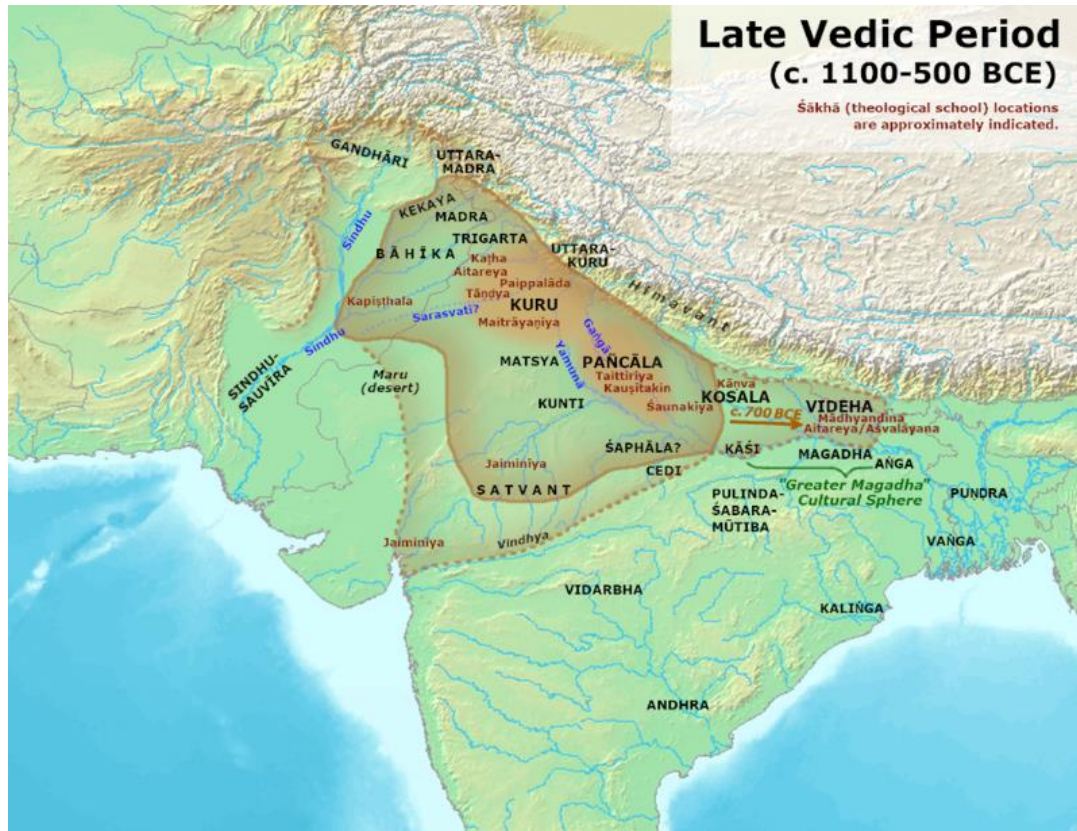
1. *State formation and political integration: Subordinate rulers under the Guptas in central India,* Studies in *People's History 4(2):130-145, 2017,10.1177/2348448917725850*

***From the middle of the first millennium BC Brahmanical ideology** and Hinduism defined Indian reality. Indeed, the past was made of a variety of constituents. Brahmanical ideology had been the dominant cultural strand. Besides, through it we wish to also show the gamut of interactions, very often quite complex, that went into the making of a unified civilization. Brahmanical tradition since its early emergence and evolution simultaneously practised integration and hierarchization of peoples, places, customs and rituals by assigning them different positions within its fold.*

The word Hindu is a later day social construct. We are charting the progress and development of Brahmanical culture and tradition which was मूल-निवासी-विषयक or *autochthonous people which meant that they were indigenous rather than descended from migrants or colonists.*

***The boundaries of Aryavarta** the adode of the Aryans as a cultural region were not very sharply defined. They were both porus and flexible, flexible in so far as it extended geographically and incorporated new regions within its ambit and porus because, contrary to general perception, it was inclusive. However, accommodation did not necessarily take place on a footing of equality, with reference to the dominant structures. The sphere of influence of Brahmanical tradition also expanded through the emulation of its rituals by*

people who considered them to be superior. Desirous of raising their own status they started following and participating in Brahmanical rites and rituals. The widening geographical focus of Brahmanical ideology was thus a two way process since its inception. Peoples and regions once considered outlying or perceived with hostility were amalgamated at another point." This is where South East Asian strands come in. Just as the christians embraced those converted to Christianity into their folds- the Hindus looked upon the converts as a family. As one moves from the idea of Brahmavarta of the Rig Vedic period to Aryavarta of later Vedic times and further through Baudhayana Dharmasutra up to Manusmriti one gets a sense of the changing contours of the conception of ideas such as Aryan and Aryavarta, with their substance and spatial dimensions being constantly modified.

Ancient Southeast Asia

Many scholars have conceived of power in classical Southeast Asia as unevenly distributed, concentrated in and emanating from potent centres, particularly kings, who manifested it in their ability to control the physical and social world over which they held dominion.

Cambodia's Angkorean era, classically defined as falling between 802 a.d. and 1431 a.d. offers a substantial corpus of inscriptions and archaeological evidence from which we know that power at this time, like kings, ancestors and the more demanding Hindu gods, was both necessary and dangerous.

In the Empire's strongest moments – beginning with the mysterious entry of Jayavarman I and spreading under Jayavarman V, Suryavarman I and II and Jayavarman VII – religion, power and the moral order seem to have been fused in the institution of kingship, and echoes of this conceptualization persist in the popular mind to this day.

The monarch was credited with access to divinity, which meant that he could channel its power into the world and thus ensure prosperity and regeneration. The official moral order, however, came 'down' from those with power, legitimized and ritualized by the religious paraphernalia at the top' of the Hinduized state. No institutional means of curbing royal power existed. Kings were praised as beings above society, as embodiments of virtue . If the king behaved appropriately, as in China and classical Vietnam, it was thought that he could influence worldly conditions, such as the weather and crops.

The inscriptions there just as well as here in India tell us very little about the world of ordinary people. Whereas political power was supposedly coextensive with the potency of the encompassing centre, unofficial religious practices were more ambiguous and more down to earth. Evidence of this underlying religious world can be found in aerial photographs showing thousands of small temples, almost all dismantled now, which were once scattered over the Angkorean landscape.

Some of these must have served not only as homes for seemingly Indian gods but also as ancestral temples, honouring the forebears of the people who had had them built. State power around Angkor weakened in the so-called Middle Period, and kings and their entourages shifted southward to the vicinity of Phnom Penh during the fifteenth century.

Various ecological factors appear to have contributed to degeneration of the Angkorean irrigation and water transport system. Thai invasions of the Angkor region also played a part. During the thirteenth century, a major cultural change occurred as Theravada Buddhism was brought to rural communities, presumably by missionizing mendicant monks.

Devaraja is the Hindu-Buddhist cult of deified *royalty in Southeast Asia. It is simply described as Southeast Asian concept of divine king. The concept viewed the monarch (king) as the living god, the incarnation of the supreme god, often attributed to Shiva or Vishnu, on earth. In the political system, it may be viewed as the divine justification of a king's rule. The concept gained its elaborate manifestations in ancient Java and Cambodia, where monuments such as Prambanan and Angkor Wat were erected to celebrate the king's divine rule on earth.*

In the Medang kingdom, it was customary to erect a candi (temple) to honor the soul of a deceased king. The image inside the garbhagriha (inner sanctum) of the temple often portrayed the king as a god, since the soul was thought to be united with the god referred to, in svargaloka9 heaven).

In Java, the tradition of the divine king extended to the Kediri, Singhasari and Majapahit kingdoms in the 15th century. The tradition of public reverence to the King of Cambodia and King of Thailand is the continuation of this ancient devaraja cult. The Susuhunan of Surakarta and Sultan of Yogyakarta are the direct descendants of the Mataram Sultanate founded in the late 17th century, and was said to be the continuation of the Ancient 8th century Mataram kingdom.[1]

The king of Thailand is not only the Head of State and of the Armed Forces he is also the Upholder of the Buddhist religion. As a result he is seen as a unifying figure among its people in the political arena but increasingly it seems that a religious cult has developed around the figure of the king. He is a constitutional monarch in power since 1946 making him world's longest-serving head of state and the longest-reigning monarch in Thai history. He is a revered man and holds considerable power and influence among the people.

Historically the figure of the Thai monarch has been important in keeping the country politically stable and out of a number of conflicts, with the preference of the Thai monarchy on peace and stability rather than conflict. Buddhist definition of Kingship affects the mythical narrative surrounding the monarch in Thailand. Setting the context for the way the Thai people publicly revere their King in not only secular terms but increasingly religious terms. The country’s religious background set in Theravada Buddhism affects how the figure of the monarch is constructed and increasingly shows similarities with the role of a spiritual leader not only a political one and with modernizing transformations taking place in contemporary Thailand it is noticeable though that the country’s religious background is not lost in the shuffle.

Though Theravada Buddhism is important in the country’s social, economic and religious identity, the figure of the Monarch takes an all-encompassing stage.-----------------------------------
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1. 13 The King and His Cult: Thailand's Monarch and the Religious Culture-In: Religious Transformation in Modern Asia, Laurens de Rooij,Chapter,Pages: 274–296,https://doi.org/10.1163/9789004289710_014

Then came Buddhism and threw out the devraja from the front door

Buddhism in Cambodia or **Khmer Buddhism** has existed since at least the 5th century. In its earliest form it was a type of Mahāyāna Buddhism. Today, the predominant form of Buddhism in Cambodia is Theravada Buddhism. It is enshrined in the Cambodian constitution as the official religion of the country. Theravada Buddhism has been the Cambodian state religion since the 13th century (except during the Khmer Rouge period).As of 2013 it was estimated that 97.9 percent of the population was Buddhist.

The history of Buddhism in Cambodia

The history of Buddhism in Cambodia spans a number of successive kingdoms and empires. Buddhism entered Cambodia via two different streams. The earliest forms of Buddhism, along with Hindu influences, entered the Kingdom of Funan with Hindu merchants. In later history, a second stream of Buddhism entered Khmer culture during the Angkor empire when Cambodia absorbed the various Buddhist traditions of the Mon kingdoms of Dvaravati and Haripunchai.

For the first thousand years of Khmer history, Cambodia was ruled by a series of Hindu kings with an occasional Buddhist king, such as Jayavarman I of Funan, Jayavarman VII, who became a mahayanist, and Suryavarman I. A variety of Buddhist traditions co-existed peacefully throughout Cambodian lands, under the tolerant auspices of Hindu kings and the neighboring Mon-Theravada kingdoms.

Unconfirmed Sinhalese sources assert that missionaries of King Ashoka, introduced Buddhism into Southeast Asia, approximately in the 3rd century BC. Various Buddhist sects competed with Brahmanism and indigenous animistic religions over approximately the next millennium; during this period, Indian culture was highly influential

Funan

The Funan Kingdom that flourished between 100 BC and 500 CE was Hindu, with the kings of Funan sponsoring the worship of Vishnu and Shiva. Buddhism was already present in Funan as a secondary religion in this era. Buddhism began to assert its presence from about year 450 onward, and was observed by the Chinese traveler Yijing toward the close of the seventh century.

Two Buddhist monks from Funan, named Mandrasena and Saṃghabara, took up residency in China in the 5th to 6th centuries, and translated several Buddhist sūtras from Sanskrit into Chinese. Among these texts is the Mahāyāna *Mahāprajñāpāramitā Mañjuśrīparivarta Sūtra*. This text was separately translated by both monks.[6] The bodhisattva Mañjuśrī is a prominent figure in this text.

Cambodian statue of Avalokiteśvara Bodhisattva. Sandstone, 7th century CE.

Chenla

The Kingdom of Chenla replaced Funan and endured from 500–700. Buddhism was weakened in the Chenla period, but survived, as seen in the inscriptions of Sambor Prei Kuk (626) and those of Siem Reap dealing with the erection of statues of Avalokiteśvara (791). Some pre-Angkorean statuary in the Mekong Delta region indicate the existence of Sanskrit-based Sarvāstivāda Buddhism.Khmer-style Buddha images are abundant from the period of 600–800. Many Mahāyāna bodhisattva images also date from this period, often found alongside the predominantly Hindu images of Shiva and Vishnu. An inscription from Ta Prohm temple in Siem Reap province, dated about 625, states, that the Buddha, Dharma and Sangha are flourishing.

Angkor

The transition from Hindu god-king to Mahayana bodhisattva-king was probably gradual and imperceptible. The prevailing Vaishnavite and Shaivite faith traditions gave way to the worship of the Gautama Buddha and the Bodhisattva Avalokitesvara.

The Buddhist Sailendra kingdom exercised suzerainty over Cambodia as a vassal state during the end of the eighth and the beginning of the ninth centuries. King Jayavarman II (802–869), the first real Khmer king of the Angkor Empire, proclaimed himself Hindu god-king and identified himself with Shiva. Nevertheless, he was increasingly friendly to and supportive of Mahayana Buddhist influence throughout his kingdom.[9] Mahayana Buddhism became increasingly established in his empire. The form of Mahayana Buddhism that was propagated in the Srivijaya lands was similar to the Pala Dynasty Buddhism of Bengal, and of the Nalanda University in northern India.

The Bengal University of Nalanda in Megadha (now Bihar) was the theological center of Mahayana Buddhism under the protection of the Pala Dynasty [750-1060]. Shivaist interpretations of Buddhism, tinged with Tantric mysticism were worked out in Megadha and then were exported throughout insular and peninsular Southeast Asia, particularly to Java. Yashovarman I (889-910), who ruled from the vicinity of Rolous in the late ninth century, seems to have been a Shivite Buddhist influenced by Nalanda syncretism. His successors (notably Jayavarman IV) dedicated themselves to Hindu trinity such as Vishnu and Brahma, as well as to Shiva, with whom they continued to be identified by hereditary families of priests. Rajendravarman II studied Buddhism intensely.

The Sailendra dynasty also built the fantastic Mahayana Buddhist temple Borobudur (750–850) in Java. Borobudur appears to have been the inspiration for the later fabulous Angkor building projects in

Cambodia, particularly Angkor Wat and Angkor Thom. A challenge of Hinduism accepted by the Buddhists.

Mahayana and Thervada

The primary form of Buddhism practiced in Cambodia during Angkor times was Mahayana Buddhism, strongly influenced with Tantric tendencies.

The prevalence of Tantrayana in Java, Sumatra and Cambodia, a fact now definitely established by modern researches into the character of Mahayana Buddhism and Saivism in these parts of the Indian Orient. Already in Kamboja inscription of the 9th century there is definite evidence of the teaching of Tantric texts at the court of Jayavarman II. In a Kamboja record of the 11th century there is a reference to the 'Tantras of the Paramis'; and images of Hevajra, definitely a tantric divinity, have been recovered from amidst the ruins of Angkor Thom. A number of Kamboja inscriptions refer to several kings who were initiated into the Great Secret (Vrah Guhya) by their Hindu Brahmin gurus; the Saiva records make obvious records to Tantric doctrines that had crept into Saivism.
But it was in Java and Sumatra that Tantrayana seems to have attained greater importance. There Mahayana Buddhism and Shaivism, both deeply imbued with tantric influences, are to be seen often blending with one another during this period. The Sang Hyang Kamahayanikan, consisting of Sanskrit versus explained by an Old Javanese commentary, professed to teach the Mahayana and Mantrayana.

The presence and growing influence of Buddhism continued as the Angkor empire increased in power. King Yosavarman built many Buddhist temples in 887–889, representing the mandala of Mount Meru, the mythical axis of the world. The largest of these temples is Phnom Kandal or "Central Mountain" which lies near the heart of the Angkor complex.

King Rajendravarman II (944–968) "studied Buddhism intensely. Although he decided to remain a Shivaist, he appointed a Buddhist, Kavindrarimathana, chief minister. Kavindrarimathana built shrines to Buddha and Shiva. Jayavarman V (son of Rajendravarman) also remained a devote of Shiva. He, too, permitted his own chief minister, Kirtipandita, to foster Mahayana Buddhist learning and divination."

Suryavarman I

Suryavarman I (1006–1050) is considered the greatest of the Buddhist kings, with the exception of Jayavarman VII.

The origins of Suryavarman I are unclear but evidence suggests that he began his career in northeastern Cambodia. He came to the throne after a period of disputes between rival claims to the Khmer throne. Claim to the Khmer throne did not exclusively include paternal lines but also recognized the royal maternal line, giving prominence to whichever line successfully supported the legitimacy of the claim.

A strong proponent of Mahayana Buddhism, he did not interfere or obstruct the growing presence and dissemination of Theravada Buddhism during his reign.

Indeed, inscriptions indicate he sought wisdom from wise Mahayanists and Hinayanists and at least somewhat disestablished the Sivakaivalya family's hereditary claims to being chief priests (purohitar). Surayvarman's posthumous title of Nirvanapada, 'the king who has gone to Nirvana' is the strongest evidence that he was a Buddhist."

Jayavarman VII

Naga-enthroned Buddha statue, 12th century, Angkor

Jayavarman VII (1181–1215), the most significant Khmer Buddhist king, worked tirelessly to establish Buddhism as the state religion of Angkor. Jayavarman VII was a Mahayana Buddhist, and he regarded himself to be a Dharma-king, a bodhisattva, whose duty was to "save the people" through service and merit-making, liberating himself in the process. Jayavarman withdrew his devotion from the old gods and began to identify more openly with Buddhist traditions. His regime marked a clear dividing line with the old Hindu past. Before 1200, art in the temples mostly portrayed scenes from the Hindu pantheon; after 1200, Buddhist scenes began to appear as standard motifs.

During Jayavarman VII's reign, there was a shift away from the concept of devaraja god-king, toward the concept of the Sangha, the concept of monks. In former times, great effort and resources were invested into building temples for elite brahman priests and god-kings. Under Jayavarman, these resources were redirected to building libraries, monastic dwellings, public works, and more "earthly" projects accessible to the common people.

While Jayavarman VII himself was Mahayana Buddhist, the presence of Theravada Buddhism was increasingly evident.

This Singhalese-based Theravada Buddhist orthodoxy was first propagated in Southeast Asia by Taling (Mon) monks in the 11th century and together with Islam in the 13th century in southern insular reaches of the region, spread as a popularly-based movement among the people. Apart from inscriptions, such as one of Lopburi, there were other signs that the religious venue of Suvannabhumi were changing. Tamalinda, the Khmer monk believed to be the son of Jayavarman VII, took part in an 1180 Burmese-led mission to Sri Lanka to study the Pali canon and on his return in 1190 had adepts of the Sinhala doctrine in his court. Chou Ta-Laun, who led a Chinese mission into Angkor in 1296-97 confirms the significant presence of Pali Theravada monks in the Khmer Capital."

Decline of Angkor and the emergence of a Theravada kingdom

After the 13th century Theravada Buddhism became the state religion of Cambodia.

King Jayavarman VII had sent his son Tamalinda to Sri Lanka to be ordained as a Buddhist monk and study Theravada Buddhism according to the Pali scriptural traditions. Tamalinda then returned to Cambodia and promoted Buddhist traditions according to the Theravada training he had received, galvanizing and energizing the long-standing Theravada presence that had existed throughout the Angkor empire for centuries.

During the time Tamalinda studied at the famous Mahavihara Monastery in Sri Lanka (1180–1190), a new dynamic type of Theravada Buddhism was being preached as the "true faith" in Sri Lanka. This form of Buddhism was somewhat militant and highly disciplined in reaction to the wars with the Tamil that nearly destroyed Buddhism in Sri Lanka in the 9th and 10th centuries. As Theravada Buddhism struggled for survival in Sri Lanka, it developed a resiliency that generated a renaissance throughout the Buddhist world, and would eventually spread across Burma, Chang Mai, the Mon kingdoms, Lana, Sukothai, Laos, and Cambodia.

In the 13th century, wandering missionaries from the Mon-Khmer-speaking parts of Siam, Burma, Cambodia, and Sri Lanka played an important part in this process.

When Prince Tamalinda returned after ten years of ordination, he was a Thera, a senior monk, capable of administering ordination into this vigorous Theravada lineage, which insisted on orthodoxy and rejected Mahayana "innovations" such as tantric practices.

The mass conversion of Khmer society to Theravada Buddhism amounted to a nonviolent revolution every all level of society. Scholars struggle to account for this sudden and inexplicable transformation of Khmer civilization. Theravada Buddhism succeeded because it was inclusive and universal in its outreach, recruiting the disciples and monks from not only the elites and court, but also in the villages and among the peasants, enhancing its popularity among the Khmer folk.[12]

The post-Angkor period saw the dramatic rise of the Pali Theravada tradition in Southeast Asia and concomitant decline of the Brahmanic and Mahayana Buddhist religious traditions. A 1423 Thai account of a mission to Sri Lanka mentions eight Khmer monks who again brought orthodox Mahavihara sect of Singhalese order to Kampuchea. This particular event belied, however, the profound societal shift that was taking place from priestly class structure to a village-based monastic system in Theravada lands. While adhering to the monastic discipline, monks developed their wats, or temple-monasteries, not only into moral religious but also education, social-service, and cultural centers for the people. Wats became the main source of learning and popular education. Early western explorers, settlers, and missionaries reported widespread literacy among the male populations of Burma, Thailand, Kampuchea, Laos, and Vietnam. Until the 19th century, literacy rates exceeded those of Europe in most if not all Theravada lands. In Kampuchea, Buddhism became the transmitter of Khmer language and culture.[5]

With the rise of Siam in the west and Vietnam in the east, the classical Angkor empire disappeared and the beginning of present-day Cambodia began. Cambodia became from this time forward a Theravada Buddhist nation.

Buddhist Middle Ages

Life of Guatama Buddha painting. Cambodia. 18th century. Toulon Asian Art Museum.

The Jinakalamali gives an account of the cultural connections between Cambodia and Sri Lanka in the fifteenth century. It states that 1967 years after the Mahaparinibbana of the Buddha, eight monks headed by Mahananasiddhi from Cambodia with 25 monks from Nabbispura in Thailand came to Sri Lanka to receive the umpasampada ordination at the hands of the Sinhalese Mahatheras.

As Angkor collapsed under the advancing jungles, the center of power of the Theravada Cambodia moved south toward present day Phnom Penh. Phnom Penh was originally a small riverside market center where the Mekong River and the Tonle Sap River converge.

Phnom Penh was founded when Lady Penh found a "four-faced Buddha" floating down the river on a Koki tree during the flooding season. She retrieved the Buddha image and had the Wat Phnom constructed to house the image. The four-faced Buddha [Buddha facing the four directions] is important in Khmer Buddhist iconography, signifying the establishment of the kingdom of the Buddha of the Future, Maitreya, who is often identified with the Buddha-king of Cambodia. The type of Buddhism practiced in medieval Cambodia has been widely studied by professor François Bizot and his colleagues at the École française d'Extrême-Orient. They have identified tantric and esoteric elements in this tradition and thus call it "Tantric Theravada".

After 1431 when the Cambodian kings permanently abandoned Angkor due to a Siamese invasion, the royal court was located on Udon Mountain, a few miles north of Phnom Penh. Siamese incursions from the west and Vietnamese invasions from the east weakened the Khmer Empire. The Vietnamese invaders attempted to suppress Theravada Buddhism and force the Khmer people to practice Mahayana Buddhism. The Siamese, on the other hand, would periodically invade Cambodia and attempt to drive out the "unbelievers" in an attempt to protect the Theravada religion. This power-struggle between the two ascendant powers continued until the arrival of the Europeans in the 16th century.

Chapter 3

Jayavarman VII

Jayavarman VII (ca. 1120–1218) is one of the best known Cambodian “Angkor” leaders, in part because he was able to unite the numerous small, fragmented Khmer Cambodian and Cham kingdoms of the day. He ruled his consolidated Khmer kingdom from 1181–1218, bringing the decentralized Khmer and Cham states together through political and military alliances. Religion, especially India-derived Brahmanism, or “Hinduism,” Mahāyāna Buddhism, and local Cambodian religion, was a key component of Khmer society. Over time different Khmer rulers endorsed one or more of the religious systems to their own advantage. Jayavarman VII was especially committed to Mahāyāna Buddhism, evidenced by the remarkable extent of his support for Buddhist monuments, and attested in many hundreds of Sanskrit inscriptions. This essay tells the story of Jayavarman VII, a political and military leader who used Indian religious visions and prototypes as models to build a remarkable cultural edifice.

Introduction

Jayavarman VII (ca. 1120/25-ca. 1218; r. ca. 1181–1218) was one of the most influential kings of “Angkorian” Cambodia; in his lifetime, through conquest and astute diplomacy, he brought a large number of small regional territories under his control. He reportedly lived a very long life and more certainly, was responsible for massive building projects in his Cambodian, ethnically Khmer kingdom. The Cambodian or Khmer civilization flourished between the early ninth and the mid-fifteenth century, with shifting boundaries between its Thai “Ayutthaya” and Vietnamese “Cham” neighbors, sometimes as allies and sometimes as enemies. For a brief but brilliant

period, Jayavarman VII was able to assume control of a remarkably large empire, one constructed in the political climate of the day, of sometimes shifting alliances and disputes.
This essay includes a description of Jayavarman VII, and his rise to power through medieval Khmer political processes. It shows the important role of religion through analysis of inscriptions carved in stone. The goal is to show the complex and distinctively Khmer interface of politics, Buddhist and Hindu ("Brahmanical") religions and cultures. The proliferation of Mahāyāna Buddhist images and epigraphs will be used to consider components of medieval Khmer identity, including their regard for monastic institutions and fundamental religious principles and practices.

Map, Natalie Maitland, "Peninsular Southeast Asia at the time of Jayavarman VII." In Sonya Rhie Mace, *Banteay Chhmar, Lokeshvara, and Cleveland*. Cleveland Museum of Art, 2017, p. 9.

Jayavarman VII was in a privileged class of his day. He was born into a lineage of wealthy rulers, and was exposed to political diplomacy and the politics of conquest at an early age. In a vibrant religious environment, he marked his success in politics and diplomacy with expressions of religious belief and practice; in his case, Buddhism. In his reign, as with those before and after him, religions (especially Indian Buddhism and Brahmanical or "Hindu" ideologies) were the central systems for validating royal authority.

Many of the medieval Angkor monuments were constructed as Buddhist or Brahmanical, and several served both religions over time.[1] This essay focuses on Jayavarman VII (1181–1218), a major sponsor of Buddhist monuments, whose visions and achievements are commemorated in votive and donative inscriptions. The proliferation of Buddhist monuments and inscriptions, moreover, evidences broad community acceptance of Buddhist beliefs and practices, and along with these, political and economic support. This support is verified by the remarkable extent of existing Buddhist monuments and, notably, by very many inscriptions that serve as sources for this essay. As Sheldon Pollock argues, inscriptions were not only written "for the gods"; rather, "[i]nscriptional discourse in Cambodia had some other, political-cultural work to do."[2]
The monuments and inscriptions studied here represent the multi-faceted Khmer political and religious vision, which focused on Buddhism in Jayavarman VII's time. One caveat is that the extant data from conserved monuments, art objects, and inscriptions are only traces of complex religious institutions and sponsorship by literate classes of society. They can only provide inferential clues about long lost religious buildings made of perishable materials, and about beliefs and practices of communities at large. Nonetheless, this paper proceeds under the assumption that the inscriptions and objects under study did the work of kingship and religion in specific contexts, with recognizable expressions of religious affiliation and of devotion to deities, to Buddhist and Hindu principles and practices, and to monastic institutions.[3]

The Life of Jayavarman VII

The little available biodata about Jayavarman VII shows that he was the son of King Dharaṇīndravarman II (r. 1150–1160) and his wife Queen Śrī Jayarājacūḍāmaṇi. Jayavarman VII married Jayarājadevī, and after her death he married her sister Indradevī. Little else is known of Jayavarman VII's childhood and youth, but it is clear that he was in a privileged class, relatively wealthy, with political connections likely through his clan, and with significant military skill. It appears that he grew up in the Khmer empire, but spent much time in neighboring Cham (Vietnam) lands. For their part, the Cham were at least as fragmented as the Khmer; Vickery has shown that like the Khmer there were several, if not many, small Cham kingdoms, some of which allied among themselves, with their Khmer neighbors, and evidently mercenary groups, in agreements made and broken over years for expected military, political, trade, and territorial advantages.[4] This was the normal political process in medieval Cambodia. The scenario was one of running battles between different allied Khmer and Cham clan groups, who could and did shift alliances over time.

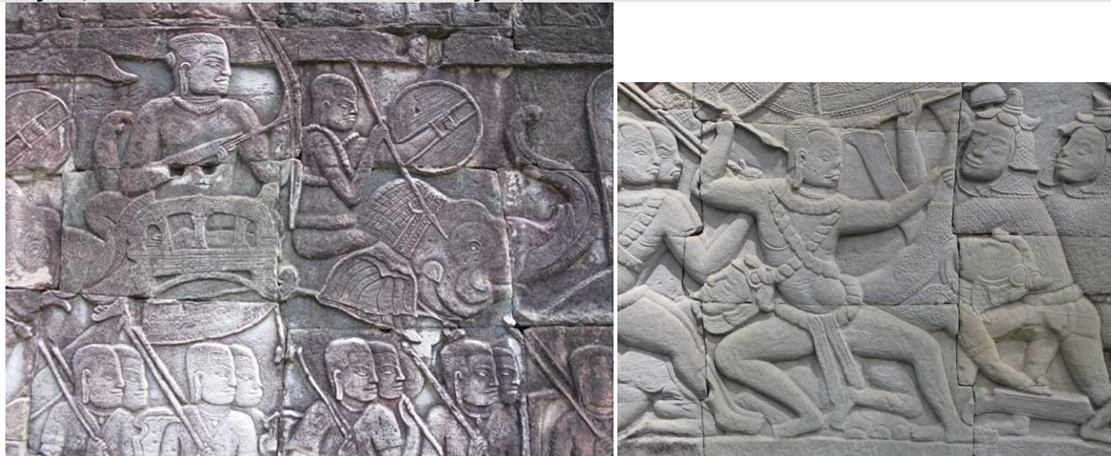
After Jayavarman VII's father passed away in 1160 and his clan member Yasovarman claimed the throne, Jayavarman VII (then about forty years old) served in the court. But around 1166, Tribhuvanādityavarman, evidently a court official, took the throne. Jayavarman VII left the Khmer capital, possibly going to Preah Khan in Kompong Svay (about 100 km east of Angkor) or perhaps to a Cham kingdom.[5] For the next decade, until about 1177, there were more alliances and more battles between groups of allied Khmer and Cham. It is often said that in 1177 there was a unified Cham invasion of Khmer territory. Vickery and others refute this, and Vickery argues further that in this decade (1166–1176) the Khmer were in political turmoil and there was a series of raids and battles between the Cham and Khmer.[6] He suggests that "… the real conquest of Angkor was by Jayavarman VII and his Cham allies–probably in the 1170s, at least before 1181–and that the subordination of central and southern Champa to him dated from that time."[7]

Photos, Sandar Aung, top left photo of Jayavarman VII at the National Museum, and the remaining four at the Bayon.

In 1181, Jayavarman VII took the throne of the Khmer empire. Again following the policy of fortuitous alliances against his enemies, he then expanded the empire to its greatest extent ever and built an unprecedented number of temples, religious buildings, and infrastructure projects. He was an innovator, and though tolerant and even supportive of Hinduism, he clearly adopted Mahāyāna Buddhism, Sanskrit language inscriptions, and Buddhist imagery. The expansive and explicit nature of his religious expressions supply good materials and some enigmas for the study of Buddhism in Khmer society of the day.[8]

Jayavarman VII's[9] reign over the Khmer kingdom extended from about 1181 to 1218. He was likely in an extended family or as Vickery put it, a "conical clan," in which all biologically and perhaps marital-related members shared considerable wealth and social status.[10] Wolters describes "cognatic kinship," in which prominent males and females are equally important, and there is individual distinction as a "man [or woman] of prowess."[11]

It appears that for much of Jayavarman VII's youth and middle age—until he assumed control of the empire—Khmer clan-based society was stratified, with little continuity of administrative and bureaucratic structures, and no unity under a single leader. Social, political, and economic patterns were divided into villages, and likely into groups of bonded workers impressed by or under the control of classes of equal or higher status. These included court officials and corporate groups or small "kingdoms" made up of a number of regional estates.[12] These larger clan-based groups could often rally militias and engage in running battles with neighboring forces. Battles, territories, property and populations, including communities of working people, were won and lost as alliances were made and broken.

Bayon, Khmer & Cham in battle./ : Bayon, Cham in doublet armor.

Cham (doublet armor). / Khmer (strap battle dress).

When large groups were consolidated, a group leader or king could be named until he was usurped by a neighboring king in a very loose model that could evolve over time, and was inconsistent.

This was Jayavarman VII's background, one of internecine warfare with unstable and shifting political structures. However, even though unstable, the Khmer corporate regimes or kingdoms did manage to maintain some degree of control via warfare, inter-clan alliances, military force, economy, and diplomacy. This resulted in the establishment of city centers, where culture and economy flourished, as is evident in the Khmer dynastic histories and monuments, notably those associated with Jayavarman VII.

Khmer Politics

Jayavarman VII (r. 1181–1218) unified the Khmer empire by consolidating power over individualized "segmented" provinces. His visions of conquest and kingship over these provinces were likely rooted in Indian models for religion and governance, at least rhetorically. Kulke and others suggest a three-stage model for the emergence of Jayavarman's empire: first, local units led by native chieftains; second, consolidation into larger regional units, with petty "kings" (*rāja*), but "not yet Aryan" (*anaryya*); and third, coalescence into larger states under one central authority. Jayavarman VII was this third type of leader.[13]

As the process went through its stages, there was also a gradual process of royal divinization, the transformation or apotheosis of a human political and military leader into a religiously-endowed leader, from a chieftain, to a king, to a divine king. The use of Indian titles, political structures, and religions was a process many scholars call "Indianization," which Kulke and others minimize, and Pollock and others describe as vital.[14]

The Khmer assimilated outside influences in politics and in the construction of distinctive Khmer art, but they made it their own. This is made clear in the representations of divinities and royalty with Khmer facial features, including rounder faces, broader brows, and other features.[15] The collections of sculpture in Phnom Penh's National Museum and in the Musée Guimet give ample evidence of the beauty and precision of Khmer sculpture.

Bayon apsaras.

Photos, Sandar Aung: Bayon apsaras.

Evidence for "Indianization" is in the Khmer's extensive and literate use of Sanskrit and Indian languages for official inscriptions and religious discourse, the subject matter of the exquisite Khmer sculpture, and the evident presence of and high regard for Brahmanical authority and ongoing contacts between India and Cambodia. Taking this into account, Angkor was an "Indianized" state in which Sanskrit and notably, Indian religions, were adopted by local people.[16]

Further, in medieval Cambodia a key Indian political structure was a process called "maṇḍalification" or "sāmantization," a phenomenon known in small Indian Pāla kingdoms and a likely model for the Khmer kings.[17] This was arguably a key component of the Indian influence on the Khmer. The root of this key belief was that if a king was properly consecrated he could transform himself and his environments into a sacred realm (*maṇḍala*) under his control. Consecrated kings became the central Buddhas of these *maṇḍala* realms; their retinues became attendant bodhisattvas, protectors and so on. Their kingdoms became perfected Buddha heavens, their edicts and rule became enlightened speech or mantras, and their motives and inspiration led to Buddhist enlightenment. It may well be that ideologically, the Buddhism adopted by the court was favored precisely because it flattered the imperial self image. "Que Jayavarman se soit considéré comme un Bouddha vivant."[18] The kings' adoption of Buddhism was "… wholesale conversion, the fundamental transformation, of a human domain into a Buddha-realm, an empire governed by superhuman insight, power, and law."[19]

Photo, Sandar Aung: *Maṇḍala*-influenced architectural diagram, Preah Khan.

Photo, Sandar Aung: Ta Prohm.

The emphasis on kingship and dominion over one's newly formulated world came on a foundation of conquest and subsequent sacralization of space, an extension of a deity's dominion, and a place where a *vastupuruṣa* divine body, "comme un Bouddha vivant" became synonymous with the sacred site of a temple and, by extension, the entire universe, the totality of one's experience. Accordingly, the central religious practice of the time was "… the individual assuming kingship and exercising dominion…. the person metaphorically becom[ing] the overlord (*rājādhirāja*) or universal ruler (*cakravartin*)"[20] or divine king (*devarāja*) of the new vision of a perfected realm,[21] whether individual layman, monk, or king.
Jayavarman VII and other Angkor Buddhist kings had the status of divine kings (*devarāja*) and functioned as universal monarchs (*cakravartin*).[22] Thus, in the course of (and after) consolidating the kingdom, Jayavarman VII utilized established systems of Indian Buddhist mantras, *mūdra*s, and ritual practices.[23] More emphatically, in an epigraph at Angkor Thom, Jayavarman VII "recites mantras to lead the world to the highest religious goal by destroying obscurity and by following all of the rules."[24]

Khmer Religions

Buddhism, not to the exclusion of Hinduism, was a one of the major forces in Khmer history. Jayavarman V (968–1001)'s tenth century inscription at Vat Sithor in Kompong Cham tells us:
eṣā śrī jayavarmmājñā buddhadharmmānucār[iṇī]
vauddhānām anukarttavyā mokṣābhyudayasiddhaye[25]
"This observance of the Buddhist teachings was ordered by the glorious Jayavarman and must be followed by Buddhists for success in the process (*abhyudaya*) to freedom."

And again, by Jayavarman VII (r. 1181–1218), in his typical opening dedication of the widely distributed “hospices,” here showing the extent of his empire, from Vientien, in Laos:
namo vuddhāya nirmāṇadharmmasambhogamūrtaye
bhāvābhāvadvayātīto dvayātmā yo nirātmakaḥ[26]
“I bow to the Buddha, in his emanation, reality, and beatific aspects, who is beyond both being and non-being, whose self is non-dual (*advayātmā*), who is selfless.”

If the proliferation of icons, ambulatories, meeting halls, stūpas and other architectural features were used as they were and are in other Buddhist cultures, devotion (*bhakti*) was likely a central practice in medieval Angkor.[27]

There is evidence of this type of practice in medieval Angkor. In her Phimānakas inscription (ca. 1194–1200), Queen Indradevī uses language and mechanisms typical of religious practice. The epigraph is incomplete and the context mundane—and perhaps typical of a devoted wife praying for her husband’s safe return— but the language and literary devices use mechanisms reminiscent of, if not taken from, devotional meditation. Fragments of verses (#59–64) are suggestive of religious sentiments:

Phimānakas. Prasat Tor.

Buddhists and Non-Buddhists

The 1189 Prasat Tor inscription attributed to Bhūpendra III[43] was sponsored by a prominent Brahmanical family with strong religious sensibilities well before and during Jayavarman VII’s reign.

The inscription is clearly Hindu. It describes Jayavarman VII as an embodiment of Śiva, not of a Buddha or of a bodhisattva, and it invokes Hindu deities, myths and doctrines. However, it also includes reference to Buddhist monasteries.[44] The co-existence and overlapping of architecture, iconography, ritual, and language most probably reflected a degree of accommodation, cross fertilization,[45] and even competition. However, it appears that at Angkor there was not a fully developed Hindu-Buddhist syncretism. Each religion maintained its separate identity.
Hindu and Buddhist religions were separate Khmer institutions in medieval Angkor. Rituals and practices were adopted and re-interpreted in historical sequences or in different regions. Coedès has remarked on this point, of a typical passage in the ca. 1186 Ta Prohm inscription (but relevant to the entire religious environment) that “… le caractère bouddhique n’exclut pas certaines expressions trahissant un tréfonds brahmanique …”[46] The inconsistencies between

Khmer Hinduism and Buddhism were the results of redefinitions and revaluations of their respective rituals. While orthodox doctrines of both religions were applied to heterodox rituals the faithful were likely clear about their religious affiliations.[47] Buddhism and Hinduism co-existed in this environment, and to a certain extent shared ritual mechanics and ritual spaces.
There is also much evidence of religious conflict: for example, in the post-Jayavarman VII period, when all depictions and statues of the Buddha were systematically and very nearly entirely destroyed or chipped away from major Angkor temples, including the Bayon, Preah Khan, Banteay Kdei, Ta Som, Ta Prohm and others.

Prajñāpāramitā.// Defaced Buddha images, Preah Khan.

Hindu liṅgam & Buddhist stūpa, Preah Khan.

Many twelfth- to thirteenth-century monuments at Angkor were constructed as either Hindu or Buddhist, but over time several alternated between both religions.[48]
At Ta Prohm, the temple dedicated to Jayavarman VII's mother, the king inscribed his recognition of Buddhism as the dominant religion:
17.
śākyenduśāsanasudhājanitātmatṛptir
bhikṣudvijārthijanasātkṛtabhūtisāraḥ
sāraṇ jighṛkṣur aśubhāyatanād asārāt
kāyād ajasrajinapādakṛtānatir yaḥ[49]
"His self-contentment comes from the moon of the Śākyas and the nectar of the teachings, He extends his respected (*sātkṛt*) influence to monks, the twice-born, and worthy persons,
He seeks to know (*jighṛkṣur*) substance from the insubstantial body with its impure sense fields, [and]
He constantly bows in homage to the Conqueror."

Still, Buddhism and Brahmanism co-existed in this environment, and to a certain extent shared ritual mechanics. Even at times of powerful political sponsorship of one religion over the other, both persisted.

Buddhas, Bodhisattvas, and their Friends

The Buddha, stūpas and other Buddhist imagery are common, and Jayavarman VII was clearly influenced by the iconography and symbolism of Mahāyāna Buddhist bodhisattvas, especially a triad known elsewhere in Asia that included various combinations of three; Lokeśvara (Avalokiteśvara), Vajrapāṇi, Mañjuśrī, Śākyamuni, and/or the goddess Prajñāpāramitā.[50]
The invocation and rituals surrounding these deities were carried out as described above, and their specific attributes worked to generate different Buddhist qualities. The main principles embodied by those mentioned here are compassion and wisdom, which together yield enlightenment. Accordingly, Jayavarman VII dedicated Ta Prohm (1186) to his mother as Prajñāpāramitā, and Preah Khan (1191) to his father as Lokeśvara.[51] Lokeśvara appears very frequently at Buddhist Angkor. In her Phimānakas inscription (ca. 1194–1200), Indradevī, his second wife, opens her long poem with praise to the Buddha, dharma, saṅgha, and Lokeśvara, who promote the good of the world (*lokeśvaro lokahitānulomo*), as Jayavarman VII himself strives to further the ends of the world (*lokārthavidhānadīpta* …).[52]

Photo, Sandar Aung: Avalokiteśvara, Banteay Chmar.

Banteay Chmar, Khmer soldiers in strap battle dress.// Prasat Chrung, “corner temple,” of four at Angkor Thom.

There are extensive and dominant bas-reliefs of Lokeśvara at Banteay Chmar that remain to the present day and there is explicit mention at Prasat Chrung of the “compassionate one” (the epithet of Avalokiteśvara), who on the support of the Buddha-fields, solidifies the dharma.”[53]

There is also a presence of Hevajra and other tantric deities at Angkor. These have been the subject of much speculation, and art historians in particular have done much to locate these deities in Angkor’s religious world. There continue to be many different hypotheses, but none, as far as I can tell, present an explanation of the extent of tantric practice. Perhaps these deities were understood much as bodhisattvas mentioned above, powerful and wise deities to be invoked for merit, material benefit, and (for some) to be internalized as components of consciousness.

Hevajra, c. 1200. Cambodia, reign of Jayavarman 7th. Bronze. Overall: 46 × 23.9 cm (18 1/16 × 9 3/8 in.). Cleveland Museum of Art, Gift of Maxeen and John Flower in honor of Dr. Stanislaw Czuma 2011.143.

McGovern, Crosby, and others have shown the range of esoteric practices that depart from canonical models in later Thai and Cambodian Buddhism; versions of such practices were very likely known at Angkor in years previous. These, however, seem to be more consistent with the kinds of rituals described above, rather than the fully developed transgressive tantra found in India.[56] See for example at Vat Sithor:
42.
vāhyaṃ guhyañ ca saddharmmaṃ sthāpayitvā cakāra yaḥ
pūjārthan tasya saṃghasyātitheśca pṛthagāśramān
"He set up the true dharma, exoteric and esoteric, and then he made places (*āśrama*) of worship for the ordained community and lay practitioners."[57]

The role and practice of tantra at Angkor remains unclear and is another of the many areas for detailed research.

Monasticism

Religious specialists, monks, and tantric practitioners alike often worked in service of political authorities. Monasteries…
… interact[ed] with warlords and princes, the military generals and their emerging tribal leaders. [They] arose wherever esoteric Buddhism was practiced. [They were] the domain of monks, who wrote and preached in a hermeneutical method that emphasized the development and integration of esoteric ideas and models into institutional requirements…. [L]aymen from disparate backgrounds became members of a culture unified by monastic rule, ritual, cosmology, and doctrine.[58]

Archeological data for monasticism from medieval Angkor, even from the reign of Jayavarman VII, is minimal. Compared to the more than one hundred remaining temples, there is little evidence of large-scale monasteries.[59] This lack of archeological evidence may, however, be a function of the choice of perishable building materials for monastic and other complexes. The excavation of what is evidently a small monastery in the NW quadrant of Preah Khan is an exception.
However, the presence of educated monks in Angkor is signaled by the mention of monastic activity in inscriptions. This, and the actual level of literacy found in inscriptions, supports the hypothesis that monastic experts were present as authorities, teachers, doctors and medical experts in the more than one hundred medical clinics. These matters were the provenance of Buddhist monks. Further archeological excavations at Preah Khan and elsewhere may reveal evidence of wooden monastic dwellings, which are noted in Zhou Daguan's 1296–1297 CE account.[60]
There are explicit references to monastic activity in inscriptions, even if not yet fully corroborated by archeological data. From the reign of Jayavarman V (968–1001), at Vat Sithor, there is mention (see above) of the establishment of monasteries for esoteric and exoteric groups, and separate residences for ordained and lay persons. The Vat Sithor inscription also contains a long list of rules for monasteries.
58.
vihāraṃ kārayitvā yas triṣu ratneṣu kalpayan
pareṣāṃ hitasiddhyarthaṃ sa mahāpuṇyam āpnuyāt
"One who constructs a monastery for the Three Jewels, and for the sake of accomplishing goodness for others, obtains great merit."

59.
tribhāgas sarvvasaṃbhogo ratnatritayakalpitaḥ

sthāpanīyaḥ pṛtaktvena mā miśras syāt parasparam
"All of the donations in three parts must be allotted to the Three Jewels, set up separately without mixing with each other."

60.
na jñaptiś ced vihārasya bhikṣubhir vvidhivat kṛta
avihāra iti jñeyaḥ koṣṭhāgāras sa eva tu
"If it is not designated as a monastery by the monks' rules, it will be known as a non-monastic place, and just a storehouse."

61.
jīvikārthe kṛtas so ya[ṃ] na parārthe na śāntaye
vrahmapuṇyan na tatrāsti yena sarvvajñatā[ṃ] vrajet
"A place for this life that is not for anything else, not for tranquility, has no divine merit (*brahmapuṇya*) that leads one to omniscience."

62.
vihārasya yadā jñaptis sādhunā vidhinā kṛtā
tataḥ puṇyam ivākāśaṃ sarvvatra gatam akṣayam
"When a place is designated as a monastery according to the good rule, its merit spreads everywhere, indestructible, like space."

63.
ata evavidhaṃ puṇyam. ye lumpanti narādhamāḥ
tair ghoran nārakaṃ duḥkham anantam anubhūyate
"Thus too, those wretches who destroy this kind of merit experience unending misery in dreadful hell."

64.
gṛhibhir nnopabhoktavyaṃ saṃghadravyaviṣādhikam
viṣaṃ hi pratikurvvanti mantrādyāḥ na tu sāṃghikam
"The community's materials are a virulent poison for householders who do not donate, for their invocations are changed into poison, but not for those of the community."

65.
sarvvajñavākyam evan tat kṛtvā manasi bhaktitaḥ
vidvān utpādya vidhivad vihāraṃ dūratas sthitaḥ
"An intelligent person with devotion in his mind, who acts according to the words of the omniscient one, who builds a monastery according to the rules, will live for a long time."

66.
guṇinaś śīlavantaś ca dhīmantas te gaṇādhikāḥ
nānābhogas tadarthāya kalpitaḥ puṇyam icchatā
"Those with good qualities, who are ethical, intelligent, the best among their peers, wish to make merit for a variety of good causes."

67.
pratyūṣādiṣu yat karma yamināṃ muninoditam
käryyaṃ saṃghena tat sarvvaṃ yājakena viśeṣataḥ[61]
"Obligatory rituals at dawn and so on taught by the Sage are to be performed by the entire community, especially the ritual [master] (*yājaka*)."

82.

tasmāt tyaktānyakarttavyo vihārastho vicakṣaṇaḥ
saddharmmaṃ parigṛhnāti sarvvadā lekhanādinā
"Therefore, a wise monastery resident has abandoned other behavior, always following the true dharma, writing, and so on."

83.
samyagācārabhūṣeṇa vihārādhikṛtādinā
guravo bhyugatās sarvve satkarttavyā yathāvalam[62]
"Teachers endowed with perfect conduct, with the monastery rules and so on, go out to meet all of the worthy, as they come forward (*yathāvalam*)."

Further, there is more evidence of royal sponsorship of monasteries in the twelfth century. In her inscription at Phimānakas, Jayavarman VII's second wife, Indradevī, a devout and well educated Buddhist, sponsored the construction of numerous statues around the kingdom, took in orphaned girls, sponsored their ordination and sustenance as nuns, and was in general known for her ethical behavior. She was a teacher in three named Buddhist nunneries (*jinālaye*). These typical Buddhist merit-making activities are proof that there were monastic institutions at Angkor, including those for women.[63]
The 1189 Prasat Tor inscription attributed to Bhūpendra III[64] includes reference to Buddhist monasteries, which in this strong Brahmanical context is good evidence of actual monastic presence.[65]
36.
yenāśramā viracitāḥ parito vihāraṃ
ye nityahūtapuruhūtapurassareṇa
achinnasantatamakhe sukhinā sureṇa
kenāhṛtā iva ciraṃ sthitaye dyulokāḥ[66]
"Because of the attendants' constant and repeated invocations the residences constructed around the monastery are just like manifested deity heavens made constantly present (*ciraṃ sthitaye*) by spirits pleased with unbroken, continuous rituals (*makha*)."

Jātaka Stories

The ancient Buddhist *Jātaka* stories tell stories of the Buddha's past and future lives as a human or animal. He may be a king, an ascetic, a god, an elephant, or other animal. In all cases the story carries a Buddhist teaching from the Buddhist tradition. The literary and pedagogical traditions are usually associated with relatively early Buddhist roots, for example in Thailand, Śrī Laṅka, and India. The *Jātaka*s are however known and taught in later Buddhist environments, for example, in Pagan, Myanmar, in Tibet, and in Angkor.
The reliefs and epigraphs at Angkor include episodes from *Jātaka* stories, intended to convey Buddhist messages. For example, the bas-relief from Angkor Wat on display at the Phnom Penh National Museum represents four episodes from the *Vessantarajātaka*, even though Angkor Wat was a known Vaiṣṇavite temple in this period. The panels depict episodes from different non-sequential chapters, but the Buddhist message of generosity is clear.
Temple steles and mural episodes from *Jātaka*s were used to tell Buddhist stories. "Everything in these pictures means something; nothing is merely decorative."[67] *Jātaka* episodes were meant to teach, "[t]hese illustrations are not merely ornamental."[68] Queen Indradevī sponsored performances of *Jātaka* stories, likely for their instructive qualities.[69] *Jātaka* stories were used as pedagogical devices; they were not mere decoration.

This pedagogical motive may well have been intended in the carved steles of a number of *Jātaka*-related murals at Jayavarman VII's Bayon.[70] The *Jātaka*s in the outer ambulatory

include several episodes from the *Mahānipāta*, the last ten of the canonical collections, said to exemplify key Buddhist virtues.[71] Dagens points out that the Bayon *Jātaka*s also include episodes from other *Jātaka*s and sometimes highlight non-*Jātaka* figures like Lokeśvara and Prajñāpāramitā. The Bayon *Jātaka*s include episodes from the *Sāmajātaka*, representing loving kindness, from the *Vessantarajātaka*, representing generosity, and from the *Vidhurapaṇḍitajātaka*, representing honesty. Thus, in addition to the powerful religious and social messages of the entire complex the Bayon carvings taught viewers compassion, kindness, and generosity, basic Buddhist principles.

Concluding Remarks

Khmer religion does not fit any convenient category. It had beliefs and practices shared with Mahāyāna Buddhism built on Buddhist monastic foundations, and with tantric elements, all synthesized or assimilated into inherited local Khmer religious sensibilities. Brahmanical religions, "Hinduisms," were widely represented and supported at different times and places in Khmer history, not always clearly divided from their Buddhist neighbors. In the end, Khmer religions are perhaps best understood in a category of their own, a special type of Khmer synthesis. This eclecticism, however, did not at all detract from the authenticity of Khmer Buddhism, or Brahmanism, or local religions: much as in other cultures, it instead represents the diversity of the medieval Asian religious world. What is important is that the Khmer religious traditions were fully authentic in all of their manifestations, with periods of shifting political and social emphasis and support. In the case of this project, the remarkable proliferation of Buddhist monuments and inscriptions in the reign of Jayavarman VII, displays a full commitment to Buddhism, but in a larger historical and ethnographic context both informed and tolerated by other Indian and local Khmer traditions.

Photo, Sandar Aung: Bayon.

The story of Jayavarman VII's life includes the depth of his Buddhist religious sentiments and at the same time his skill as a military tactician and political leader. These different roles worked with his religious sensibilities to his advantage; there was no contradiction between his apocalyptic Mahāyāna and likely tantric apotheosis and his vision of imperial rule. Cambodian and regional politics of the day were locally segmented under individual rulers who engaged in shifting alliances with their neighbors. Jayavarman VII was thus able to form a critical mass of alliances with his neighbors, Khmer and Cham, to his advantage. The governance of medieval Southeast Asia, and especially the Khmer, was decentralized. Jayavarman VII's astute political sensibilities, fueled by his Buddhist religious vision and authenticated by Indian-derived expertise enabled his construction of a Khmer empire.

Notes

1. Partial support for this project was from a 2007–2008 Council of American Overseas Research Centers' Multi-Country Research Fellowship. All of the photos were taken by Sandar Aung, except where indicated. Thanks for the hospitality of the officers of National Museum of Cambodia in Phnom Penh, and to Ed Mish for technical support. The general terms "Hindu" and "Brahmanical" are used interchangeably. Hindu deities including Śiva, Viṣṇu, and goddesses, references to the Mahābhārata, and even Pāṇini are mentioned in several places, see Georges Coedès. *Inscriptions du Cambodge* Vols. I–VIII, Paris: École Française d'Éxtrême-Orient, 1952, Vol. IV: 232. (References to this collection below will read Coedès, Roman numeral, and page number.) Pollock's observation that Indian Brahmins and Khmer scholars were literate in Sanskrit and Indian myth is surely correct, see Sheldon Pollock. *The Language of the Gods in the World of Men: Sanskrit, Culture, and Power in Premodern India*. Delhi: Permanent Black, 2007: 129–131, etc. See Chandler 2000: 72, who mentions a centuries-long Buddhist presence at Angkor. [^]
2. See Pollock 2007: 128. [^]
3. For a criticism of relying on Sanskrit for Khmer studies in all periods, see Michael Vickery, "What to do about '*The Khmers*,'" *Journal of Southeast Asian Studies* 27.2 (1996): 389–390. See also Ian W. Mabbett and David P. Chandler, "Response to Dr. Michael Vickery's Review of '*The Khmers*' ("*Journal of Southeast Asian Studies*") 27.2 (September 1996): 389–404," *Journal of Southeast Asian Studies* 28.2 (September 1997): 389–391. [^]
4. See Michael Vickery, "Champa Revised," 23–24. The accuracy of the often-repeated stories of the battles between the Khmer and Cham forces has also been challenged by Tranh Ky Phuong and Olivier Cunin, personal communications, June–July 2007. For the battles with the Cham, see Anne-Valérie Schweyer, "The confrontation of the Khmers and Chams in the Bayon period," in *Bayon: New Perspectives*, ed. Joyce Clark (Bangkok: River Books, 2007), 50–71; on this book and other points see Michael Vickery, "Bayon: New Perspectives Reconsidered," *Udaya: Journal of Khmer Studies* 7 (2008): 101–176; see also Claude Jacques, *Angkor* (Cologne: Könemann Publishing, 1999), 124, 129 ff. For an example of the inscriptional evidence about the Cham wars in George Coedès, "La Stèle de Ta-Prohm," 44–86; verse no. XXVIII. See Albert Le Bonheur, "Ancient Cambodia: A Historical Glimpse," in *Sculpture of Angkor and Ancient Cambodia: Millennium of Glory*, ed. Helen Ibbitson Jessup & Thierry Zephyr (Washington: National Gallery of Art), 13–32. [^]
5. See Chandler, *A History of Cambodia*, 55–56. [^]
6. Michael Vickery, "Champa Revised," 70. [^]
7. Michael Vickery, "Champa Revised," 167, 170. [^]
8. Vickery remarked that "After nearly 300 years of the increasing use of Khmer language in the epigraphy, all of his important inscriptions are in Sanskrit, which could be seen as an international elite language serving both countries, and he adopted as his state religion Mahāyāna Buddhism, which had always been more important in Champa than in Cambodia. Perhaps it was his Champa associations rather than religion which sparked the so-called Hinduist reaction against his creations – allegedly in the thirteenth century, a date which is completely hypothetical." See Michael Vickery, "Champa Revised," 167, 170. See Ian Mabbett, "Buddhism in Champa," 297–298, 300–302. [^]
9. For an introduction to Jayavarman VII see Georges Coedès, *Un Grand Roi du Cambodge: Jayavarman VII* (Phnom Penh: Éditions de la Bibliothèque Royale, 1935). For bibliography on ancient Cambodia in general, see Bruno Bruguier (with Phann Nady), *Bibliographie du Cambodge Ancien* 2 vols. (Paris: École Française d'Extrême-Orient, 1998). [^]
10. See Michael Vickery, "Some Remarks on Early State Formation in Cambodia," in *Southeast Asia in the 9th to 14th Centuries*, ed. David G. Marr and A.C. Milner (Singapore: Institute of Southeast Asian Studies, 1986), 95–115. [^]
11. Wolters, "Early Southeast Asian Political systems," 7, 5–11. [^]

12. See for example Wolters, "Early Southeast Asian Political systems," 5–11. For an application of this theory in South India see Veluthat, *The Early Medieval in South India*, 60–71. See the discussion about "slaves" in Vickery, "What to do?," 398, and Mabbett and Chandler, "Response." See Mabbett and Chandler, *The Khmers*, 165–175. See Vickery, "Some Remarks on Early State Formation"; for references on the difficulties of understanding early Khmer government, see the brief mention of *poñ* (which term Vickery reports was not used after the eighth century, Vickery, "What to do?," 399) other Khmer terms, and Khmer administrative divisions, see Vickery, "What to do," 391–393, 395–396. [^]
13. See Hermann Kulke. "The Early and the Imperial Kingdom in Southeast Asian History." In David G. Marr and A.C. Milner (eds.). *Southeast Asia in the 9th to 14th Centuries*. Singapore: Institute of Southeast Asian Studies, 1986, pp. 1–22, esp. 2–7. See also the similar model, including the theory of a three stage process of transforming the land, installing kings and divinities, and then building massive monuments, in David Chandler. *A History of Cambodia*. Boulder, CO: Westview Press, 2000: 29–76. [^]
14. Pollock discusses and problematizes the phenomenon of "Indianization" in great detail, and most usefully for understanding Khmer and Jayavarman VII's understanding of Buddhism. See Pollock 2007: 531–533. [^]
15. See any of the studies of Khmer sculpture, for example, Khun Samen. *The New Guide to the National Museum—Phnom Penh*. Phnom Penh: The Department of Museums, Second Edition, 2006. [^]
16. For the language of the Cambodian inscriptions, see Kamaleswar Bhattacharya. *Récherches sur le Vocabulaire des Inscriptions Sanskrites du Cambodge*. Paris: École Française d'Éxtrême-Orient, 1991. Pollock makes a strong case for high Sanskrit literacy in Angkor, evidenced by the accuracy of Sanskrit in epigraphic materials. One interesting variation is in the Phimānakas inscription written by Jayavarman VII's second wife, Indradevī, on the occasion of the death of her sister, Jayarājadevī, the king's first wife. The two sisters were known adherents of Buddhism, particularly Indradevī. The text is in Sanskrit and in correct meter, but it is not as heavily laden with Brahmanical *praśasti* imagery and language as are the typical inscriptions, and is rather more narrative. Its language has been described as vernacular: For example, it uses what has been described as a Buddhist Hybrid Sanskrit verbal device, the particle *sma* with a present tense verb that renders the verb in past tense. See Coedès II, pp. 161–163 for introductory data; for *sma* see verse VII, XCV, pp. 164, 172. See also much of the same data in Majumdar 1953: 515–528. [^]
17. See Ronald M Davidson, *Indian Esoteric Buddhism: A Social History of the Tantric Movement* (New York: Columbia University Press, 2002); see Charles Higham, *The Archeology of Mainland Southeast Asia* (Cambridge: Cambridge University Press, 1989), the chapter titled "The Development of Maṇḍalas", 239–320, and the chapter "The Angkorian Maṇḍala: A.D. 802–1431", 321–355. See also Hermann Kulke and Dietmar Rothermund, *A History of India* (Revised, Updated Edition) (London: Routledge, 1990), 109–196, especially on *sāmanta*, 128–138. [^]
18. Coedès 1935: 27. [^]
19. Lorraine Gesick, ed., *Centers, Symbols, and Hierarchies: Essays on the Classical States of Southeast Asia*, Monograph No. 26 (Yale University Southeast Asia Studies, 1983). See Hirananda Sastri, *Nālanda and Its Epigraphic Material*, Memoirs of the Archeological Survey of India, No. 66. (Delhi: Government of India Press, 1942): 32–36. [^]
20. Harris 2005: 19; Davidson 2002: 121. The term *cakravartirāja* appears in G. Coedès. "Appendice: Les Inscriptions du Bayon," in "Études Cambodgiennes: XIX – Date du Bayon," *Bulletin de l'École Française d'Éxtrême-Orient* XXVIII (vol. 1928, published 1929): 110. [81–121]. [^]
21. See Davidson 2002: 115, "Esoteric Buddhism … reflects the internalization of the medieval conceptual and social environment, rather than the revealed system that orthodoxy portrays." See Davidson 116–168 for details, dates, etc. For the application of this theory and ritual in Cambodia, including references to Jayavarman VII, see Sachchidanand Sahai. *Les Institutions Politiques et l'Organisation Administrative du Cambodge Ancien* (*VIe–XIIIe Siècles*). Paris: École Française d'Éxtrême-Orient, 1970. [^]
22. See Stanley J. Tambiah. *World Conqueror and World Renouncer: A Study of Buddhism and Polity in Thailand against a Historical Background*. Cambridge: Cambridge University Press, 1976: 73–131. [^]
23. Coedès IV, p. 212, XL, no. 18, *mantram upācarad*, tr. 223, "la recitation des formulas magiques." [^]
24. Coedès IV, p. 216, LXXIX, tr. 227. There is evidence of fire and possibly a Cham invasion at Angkor in inscriptions and in excavated remains of burned buildings. For inscriptional evidence see *agnitaptam*, Coedès IV, p. 210, XIX, # 37. The often repeated, sequential and ethnically distinct stories of the battles between the Khmer and Cham forces have been challenged by Tranh Ky Phuong and Olivier Cunin. Personal communications, June–July 2007. For a standard overview of the battle myths with the Cham, see for example Claude Jacques. *Angkor*. Cologne: Könemann Publishing, 1999: 124, 129 ff. For an example of the inscriptional evidence see the data about the Cham wars in George Coedès. "La Stèle de Ta-Prohm," *Bulletin de l'École Française d'Éxtrême-Orient* VI (1906): 44–86, v. XXVIII. Coedès IV: 208–209. Olivier Cunin has charted the extent of Jayavarman's construction and given 1191 as the peak year for new construction. Personal communications, June–July 2007. See Olivier Cunin. "De Ta Prohm au Bayon." PhD diss., L'Insitut National Polytechnique de Lorraine, 2004; see also Olivier Cunin & Baku Saito. *The Face Towers of Banteay Chmar*. Tokyo: Goto Shoin Publishing Company, 2005. Kulke 1986: 14–15. Kulke 1986 gives an example of the medieval political process at Prambanan in Java, where temples were

built by subsidiary states and their relative importance and function noted in the temple structures at Prambanan, which "reflect the structures in the kingdom." Kulke quotes J.G. de Casparis. *Short Inscriptions from Tjandi Ploasan-Lor*. Djakarta 1958: 31 (Bulletin of the Archeological Service of the Republic of Indonesia, No. 4). Kulke 1986: 15 says that the same is true for Jayavarman VII's Angkor, but I have yet to see as detailed evidence for Angkor as that which de Casparis cites for Java. See the essay and the diagram of Khmer social, political, and religious structures in Kenneth R. Hall, "South and Southeast Asian Epigraphy as a Source of Economic History," in *Indus Valley to Mekong Delta: Explorations in Epigraphy*, ed. Noboru Karashima (Madras: New Era Publications, 1985), 92–98, diagram, 98. [^]

25. Coedès VI, 199: LI. Here and below read *vauddha-*/*vuddha-*/*vrahma-* as *bauddha-*/*buddha-*/*brahma-*; reduplicated consonants as single consonants, etc. I follow Coedès' Sanskrit readings, though sometimes not in "correct" Sanskrit, with reference to R.C. Majumdar. *Inscriptions of Kambuja*. Calcutta: The Asiatic Society, 1953, but the translations are mine. I note some variants and but do not edit the Sanskrit texts to formal, "correct" Sanskrit. K. Bhattacharya (forthcoming) presents edited versions of Angkor inscriptions. See A. Barth. "Notes et Mélanges: Les doublets de la Stèle de Say-fong," *Bulletin de l'École Française d'Éxtrême-Orient* III.3 (1903): 461. This inscription includes substantial reference to Kīrtipaṇḍīta, vv. 19–36; and to *Prajñāpāramitā*, v. 44. [^]
26. L. Finot. "Notes d'Épigraphie II: L 'Inscription Sanskrite de Say-fong" (includes Paul Pelliot, "Le Bhaiṣyaguru"), *Bulletin de l'École Française d'Éxtrême-Orient* III.1: 22 [Finot 18–33, Pelliot 33–37]; see, in the same volume, the articles about the extent of Jayavarman VII's empire in G. Maspero. "Say-fong: Une Ville Morte," *Bulletin de l'École Française d'Éxtrême-Orient* III.1: 1–17. Majumdar 1953: 492–502 shows that this inscription is similar to many others spread far apart in Jayavarman VII's empire, in Laos, Thailand, and Cambodia. Cf. the Prasat Tor inscription with dedications to Brahmanical deities, credited to Jayavarman VII but dated much earlier, in Majumdar 1953: 502–513. See Barth 1903: 460–466. [^]
27. In terms of structure and mechanics, Buddhist rituals were not far removed from Brahmanical *bhakti* devotions. See John Carman. "Bhakti," *Encyclopedia of Religion*, 132. See Harris 2005: 18–19; see Peter D. Sharrock. "The Buddhist Pantheon of the Bayon of Angkor: An Historical and Art Historical Reconstruction of the Bayon Temple and its Religious and Political Roots." PhD diss., London: SOAS, 2006; see Hiram W. Woodward. "Tantric Buddhism at Angkor Thom." *Ars Orientalis* 12: 12 (1981): 57–67. [^]
28. These verse fragments are from Coedès II: 169. [^]
29. George Coedès 1906: 50, v. 5. [^]
30. *Adhyātmadṛ*ś*āniñkṣyā*ṃ "contemplate as the manifestation of inner being." I take *niñkṣ* as "see," or "contemplate," "know," or "understand," consistent with the practice of devotional worship. Coèdes disagrees, translating *niñkṣ* as a negative verb, p. 71. See the more recent translation in Claude Jacques. "Preah Khan Stele Inscription Translation," Siem Reap, Cambodia: World Monuments Fund, *Preah Khan Conservation Project, Historic City of Angkor*, Report IV, Field Campaign I – Project Mobilization, Appendix C (July 1993): 2 n. 7. [1–35]. [^]
31. Coedès IV, p. 219, CI, #15–16, *alpavastvamvunā bhaktimato pi p[ū]rṇaḥ*. [^]
32. Coedès IV, p. 207–236, XXII, #43–44. Read *vasatī* instead of *vasantī*. Coedès' translation adds (p. 242) "poitrine de ce roi" understanding that it was the king's heart that was ornamented (*citre*) by devotion to the Three Jewels. Thus, Coedès renders the king's heart as sweet and ornamented by devotion, while I take "… *bhakticitre snigdhe*" as "tender clarity of devotion to the Three Jewels" itself, in opposition to "the hard jeweled heart of Acyuta." Coedès' translation preserves parallelism with the first part of the verse, but a more literal rendering preserves the parallel between Viṣṇu and the Three Jewels, and the role of the king. It is even possible to eliminate the king altogether from this verse, and render it a matter of religious preference, though in the context of the previous verses the king is understood. See trans. 242, "Demeurant sur la rude poitrine d'Acyuta (Viṣṇu) ornée du (seul) joyau Kaustubha, Śrī était en proie au malheur, tandis que sur la douce poitrine de ce roi, ornée de sa devotion aux Trois joyaux, elle jouissait d'un bonheur constant." [^]
33. See Thomas J. Hopkins. *The Hindu Religious Tradition*. Belmont, CA: Wadsworth Publishing Company, 1971, 108–130. He describes different rituals in detail. *Pūja* involves invocation, seating, foot water, hand water, drinking water, bathing, fresh clothes, sacred thread, anointment, flowers, incense, lamps, food/gifts, obeisance, circumambulation, praise, farewell. [^]
34. For daily practice, see George Coedès 1906: 55, v. XXXVII–XXXVIII; George Coedès 1906: 54, v. XXXI, XXXIV: 31. *bhaktyā ca yo mātari* …; 34. *bhaktyāvaśiṣtam*…. For details of the enormous offerings, see pp. 75–85. [^]
35. Coedès I: 235, v. XXXVII. Coedès edits *khāndave* to *khāṇḍave*. See *Mahābhārata, Khāndava-daha Parva*, sections 228–232. [^]
36. *Bajraghaṇṭārahasyajño*, "who knows the secrets of vajra and bell." [^]
37. Coedès VI: 209 n. 6 corrects *yadokrā* (p. 200) to *yadoktā* (*yadā ukta*), and suggests *yenoktā* as the proper reading. [^]
38. These verses are in Coedès VI: 200. [^]

39. Coedès II. [^]
40. Coedès 1906: 52, v. XVII. [^]
41. Coedès VI, p. 200. [^]
42. Coedès I: 235, v. XXXVI. See full text below. [^]
43. Coedès I: 227, 249 n. 2, 229. See Stanley Jeyaraja Tambiah, *Buddhism and the Spirit Cults in North-east Thailand* (Cambridge: Cambridge University Press, 1975), 252–262, 340–344. [^]
44. Coedès, *Inscriptions* I, 235, v. XXXVI. See the comments on Prasat Tor in George Coedès, *Bulletin de l'École Française d'Extrême-Orient* XXXI (1931): 621, 612–623, esp. 230. [^]
45. See for example Coedès and Senart quoted in George Coedès, *Inscriptions* VI, 195–196. [^]
46. See Coedès, "La Stèle de Ta-Prohm," *Bulletin de l'École Française d'Extrême-Orient* VI (1906): 44–48. "The Buddhist character did not preclude taking certain expressions from Brahmanical sources." [^]
47. See the description of the process of redefinition of icons and attendant rituals across religious, political, ethnic, and historical boundaries in Davis, *Lives of Indian Images*, 6–26. See Coedès, "La Stèle de Ta-Prohm," 44–86, where Buddhist divinities (XVIII–XXVII), rituals, and doctrines appear alongside Brahmanical, but in a definite Buddhist context. See the even more emphatic inscription at Preah Khan in George Coedès, *Bulletin de l'École Française d'Extrême-Orient* XLI (1942): 255 ff., which includes similar Buddhist dedications, information about events with the Cham, much Hindu language, myth, and ritual, and information about the construction of Preah Khan temple. Also in R.C. Majumdar, *Inscriptions of Kambuja* (Calcutta: The Asiatic Society, 1953), 475–492. [^]
48. The structures that house the obvious Buddhist icons at Preah Khan, Ta Prohm, Bayon, Angkor Thom, Banteay Chmar and elsewhere have basic architectural configurations nearly indistinguishable from Hindu buildings. See David Chandler, *A History of Cambodia* (Boulder, CO: Westview Press, 2000), 72, who mentions a centuries-long Buddhist presence at Angkor. [^]
49. Coedès 1906: 52, v. XVII. [^]
50. See Harris 2005: 16–17, etc.; Chandler 2000 acknowledges the presence of the triad of bodhisattvas at Angkor; see M. Yoritomi. "An Iconographic Study of the Eight Bodhisattvas in Tibet," in Tadeusz Skorupski (ed.). *Indo-Tibetan Studies: Papers in Honour and Appreciation of Professor David L. Snellgrove's Contribution to Indo-Tibetan Studies*. Tring, UK: The Institute of Buddhist Studies, 1990: 323–332; and numerous others on this well known topic. [^]
51. For Jayavarman VII, see Coedès 1935: 27–29; for kingship in Cambodia, see Georges Coedès. *Note sur l'Apothéose au Cambodge*. Paris: Imprimerie Nationale, 1911; for the mention of these bodhisattvas, esp. the triad of Prajñāpāramitā, Vajrapāṇi, and Lokeśvara and Mahāyāna texts, see the Vat Sithor inscription in Coedès VI, p. 199, XLIV–XLV, tr. p. 206–207. [^]
52. Coedès II: 164, v. VII. [^]
53. See *mahākāruṇiko yas tu … pratiṣṭho vuddhabhūdharaḥ*; in Coedès IV p. 232, I, K, tr. 235: "ce grand compatissant … se tenant ferme sur la règle ayant pour support la terre des Buddha, son dharma (obtint) la fermeté … comme … les montagnes." [^]
54. Coedès VI, p. 199, XLIV–XLV. [^]
55. Harris 2005: 17, 1–23. [^]
56. Twelfth to thirteenth century Khmer Buddhism has been categorized as Mahāyāna, Khmer tantrayāna, mantrayāna, yogāvacara, tantric Theravāda, early tantra, and tantric Mahāyāna. See Samuel's descriptions of tantric practices of the day in Geoffrey Samuel, *The Origins of Yoga and Tantra: Indic Religions to the Thirteenth Century* (Cambridge: Cambridge University Press, 2008), 9. See the summary in Nathan McGovern, "Esoteric Buddhism in Southeast Asia," Oxford Research Encyclopedia of Religion. Online Publication Date: Oct 2017 DOI: 10.1093/acrefore/9780199340378.013.617 (accessed 10 January 2018). See Harris 2005: 18–19; see Peter D. Sharrock. "The Buddhist Pantheon of the Bayon of Angkor: An Historical and Art Historical Reconstruction of the Bayon Temple and its Religious and Political Roots." PhD diss., London: SOAS, 2006; see Hiram W. Woodward. "Tantric Buddhism at Angkor Thom." Ars Orientalis 12: 12 (1981): 57–67. [^]
57. Coedès VI, p. 199, XLII. [^]
58. Davidson, *Indian Esoteric Buddhism*, 2002, 114. [^]
59. See the summary in Harris 2005: 10–11, 22–25, etc. See the emphatic statements on this matter in Oliver de Bernon. "About Khmer Monasteries: Organization and Symbolism." In Pierre Pichard and François Lagirarde (eds.). *The Buddhist Monastery: A Cross-cultural Survey*. Paris: École Française d'Éxtrême-Orient, 2003: 209–218; see also in the same volume Christophe Pottier. "Yaśovarman's Buddhist *Āśrama* in Angkor." In Pierre Pichard and François Lagirarde (eds.). *The Buddhist Monastery: A Cross-cultural Survey*. Paris: École Française d'Éxtrême-Orient, 2003: 199–208. For an alternative statement about the presence of Buddhist monasticism at Angkor, see David Snellgrove. *Angkor Before and After*. [^]
60. Chou Ta-Kuan (tr. Paul Pelliot). *The Customs of Cambodia*. 3rd Edition. Bangkok: The Siam Society, 1993: 11–12. Zhou mentions here that there were no nuns, which contradicts inscriptional evidence. Zhou however also mentions that he was unable to investigate any of these matters in detail. [^]
61. Coedès VI, p. 200, LVIII–LXVII. [^]

62. Coedès VI, p. 201, LXXXII–LXXXIII. Coedès edits *bhyugatās* to *bhyudgatās*. [^]
63. Coedès II, pp. 171, LXXIX–LXXX, tr. 178. The vocabulary is typical of Buddhist monastic ordination, *prāvrājayat … sasīmasam.pādita …* LXXX. *Jinālaye*, etc., XCVIII, XCIX, p. 172. [^]
64. Coedès I: 227, 249 n. 2, 229. [^]
65. Coedès I: 235, v. XXXVI. See the comments on Prasat Tor in George Coedès (ed.) *Bulletin de l'École Française d'Éxtrême-Orient* XXXI (1931): 621, 612–623, esp. 230. [^]
66. Coedès I: 235, v. XXXVI. [^]
67. A.B. Griswold. "Foreword," in Elizabeth Wray, Clare Rosenfield, and Dorothy Bailey. *Ten Lives of the Buddha: Siamese Temple Paintings and Jataka Tales*." New York: Weatherhill, 1996: 11. [^]
68. Elizabeth Wray, Clare Rosenfield, and Dorothy Bailey. *Ten Lives of the Buddha: Siamese Temple Paintings and Jātaka Tales*." New York: Weatherhill, 1996: 16. [^]
69. See the reference to the *Jātaka, svanarttakīr jātakasāranāṭyaiḥ*, Coedès II: 170, tr. p. 178, "representations tirées des *Jātaka*"; for other mention of the *Jātaka*s, see Coedès III: 198. [^]
70. See Bruno Dagens. "Étude sur l'Iconographie du Bayon: Frontons et Linteaux," *Arts Asiatiques* 19 (1969): 141–144. [123–167]. [^]
71. Wray, Rosenfield, and Bailey 1996: 16. [^]

Competing Interests

The author has no competing interests to declare.

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Chapter 4

Hevajra the Tantric Diety

Synopsis

Hevajra, Tibetan Kye-rdo-rje, Mongolian Kevajra, in northern Buddhism, a fierce protective deity, the yab-yum (in union with his female consort, Nairatmya) form of the fierce protective deity Heruka. Hevajra is a popular deity in Tibet, where he belongs to the yi-dam (tutelary, or guardian, deity) class.The primary form of Buddhism practiced in Cambodia during Angkor times was Mahayana Buddhism, strongly influenced with Tantric tendencies.

The prevalence of Tantrayana in Java, Sumatra and Cambodia, a fact now definitely established by modern researches into the character of Mahayana Buddhism and Saivism in these parts of the Indian Orient. Already in Kamboja inscription of the 9th century there is definite evidence of the teaching of Tantric texts at the court of Jayavarman II. In a Kamboja record of the 11th century there is a reference to the 'Tantras of the Paramis'; and images of Hevajra, definitely a tantric divinity, have been recovered from amidst the ruins of Angkor Thom. A number of Kamboja inscriptions refer to several kings who were initiated into the Great Secret (Vrah Guhya) by their Hindu Brahmin gurus; the Saiva records make obvious records to Tantric doctrines that had crept into Saivism.

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Hevajra is one of the main yidams (enlightened beings) in Tantric, or Vajrayana Buddhism Hevajra's consort is Nairātmyā (Tibetan: bdag med ma).

India

The Hevajra Tantra, a yoginītantra of the *anuttarayogatantra* class, is believed to have originated between the late 8th (Snellgrove), and the late 9th or early 10th centuries (Davidson),[4] in Eastern India, possibly Kamarupa. Tāranātha lists Saroruha and Kampala (also known as "Lva-va-pā", "Kambhalī", and "Śrī-prabhada") as its "bringers":

.. the foremost yogi Virupa meditated on the path of Yamāri and attained siddhi under the blessings of Vajravārāhi,...His disciple Dombi Heruka..understood the essence of the Hevajra Tantra, and composed many śāstras like the *Nairātmā-devi-sādhana* and the *Sahaja-siddhi*. He also conferred abhiṣeka on his own disciples. After this, two ācāryas Lva-va-pā and Saroruha brought the Hevajra Tantra. ... Siddha Saroruha was the first to bring the *Hevajra-pitṛ-sādhana*.

Another lineage, mentioned by Jamgon Kongtrul, goes from Vilāśyavajra to Anangavajra to Saroruha and thence to Indrabhuti.

Jamgon Amyeshab, the 28th throne holder of Sakya, considers the Hevajra Tantra to have been revealed to Virupa by the Nirmanakaya Vajranairatma. This tantra is also considered by him to have been revealed to Dombhi Heruka, Virupa's senior disciple, by Nirmanakaya Vajranairatma, from whom the main Sakya exegetical lineage of the Hevajra tantra descends.

The *Yogaratnamālā*, arguably the most important of the commentaries on the Hevajratantra, was written by one Kṛṣṇa or Kāṇha, who taught Bhadrapada, another commentator, who in turn taught Tilopa, the teacher of Nāropa, who himself wrote a commentary. He, in turn, passed on his knowledge of this tantra to Marpa (1012-1097 AD), who also taught in Tibet. Marpa also received instruction in the Hevajratantra from Maitrīpa, alias Advayavajra, who was banished from Vikramashila for practicing with a yoginī during the time of Atīśa's abbothood.

Kanha was one of the authors of Charyapada.

Tibet

Hevajra and Nairatmyai. Tibet, 18th Century

Some time in the early 11th century, Drogmi Lotsawa Shākya Yeshe *('brog mi lo ts'a ba sh'akya ye shes)* (993-1077 AD) journeyed from Drompa-gyang in Lhatsé to Nepal and India, including Vikramashila, where he received instruction in the Hevajratantra from Śānti-pa (Ratnākaraśānti) and later to Bengal, where he encountered Prajñedraruci (Vīravajra) [7] who instructed him in the "rootless Margapala" (Tib. *Lamdré*) that is particularly concerned with the

Hevajra tantra and its commentaries. Drakpa Gyeltsen writes in his *Chronicle of the Indic Masters*:

Now Lachen [Drokmi] first went to Nepal and entered into the door of mantra through [the teacher] Bhāro Ham-thung. Then he went to India itself and, realizing that the Āchārya Ratnākaraśānti was both greatly renowned and learned, he heard extensively the Vinaya, *Prajñapāramitā*, and mantra. Then having gone to the eastern part of India, he encountered Bhikṣu Vīravajra, who was the greatest direct disciple of Durjayachandra, who himself had held the lineage of Āchārya Virūpa's own disciple, Ḍombiheruka. From Bhikṣu Vīravajra he heard extensively the mantra material of the three tantras of Hevajra, complete in all their branches. He also requested the many instruction manuals of *Acintyakrama* and so forth, so that he heard the "Lamdré without the fundamental text" (*rtsa med lam 'bras*) as well. In this way, Drokmi lived in India for twelve years and became a great translator.

After twelve years he returned to central Tibet, probably by 1030, translated the Hevajratantra into Tibetan, and taught, among others, Dkon mchog ryal po (1034-1102 AD), the founder of the Sa-skya Monastery in 1073 AD. This was the beginning of the close relationship between the Sakya Order and the Hevajratantra.

In the Blue Annals, Gos lotsawa suggests that both the Hevajra and the Kalachakra Tantras are commentaries on, or introductions to, the Guhyasamāja.

Other Countries

China

The Chinese version of the Hevajra Tantra (Taishō XVIII 892, p. 587-601) was translated by Fa-hu (Dharmapalā) at the Institute for Canonical Translations (Yi jing yuan) in the capital of the Northern Sung (960-1128 AD), Bian liang, present day Kaifeng in Henan province. The five-volume translation was presented to Emperor Jen-tsung at the end of Zhi he 1 (11 February 1054- 30 January 1055 AD) . However, the Hevajra Tantra did not become popular in China. The title of the Chinese version reads "The Scriptural Text of the Ritual of The Great King of the Teaching The Adamantine One with Great Compassion and Knowledge of the Void explained by the Buddha." The preface reads:

From among the 32 sections of the general tantra of Mahāmāyā one has taken 2 rituals with Nairātmyā. Dharmapāla, Great Master who transmits Sanskrit (texts), thoroughly illuminated and enlightened with Compassion, Probationary Senior Lord of Imperial Banquets, Grandee of Imperial Banquets with the Honour of Silver and Blue, Tripiṭaka from India in the West during the Sung, received the honour of translating it by Imperial Mandate.

Cambodia and Thailand

Surviving images indicate that the Hevajra Tantra was brought to Cambodia during the Khmer Empire and its practice thrived both in Cambodia and Thailand from the 10th to 13th centuries.[

Mongolia

In 1244 the grandson of Genghis Khan, Prince Godan, invited Sakya Pandita to Mongolia and was initiated by him into the Hevajra teachings. In 1253 Kublai Khan invited Sakya Pandita's Nephew Chogyal Phagpa to court. As a result, Buddhism was declared the state religion and Phagpa was given authority over three of Tibet's provinces.

The West

The Hevajra Tantra became the first major Buddhist Tantra to be translated in its entirety into a Western language when David Snellgrove published his *The Hevajra Tantra: A Critical Study* in 1959. This work is in two volumes, the first volume containing his introduction including an "apology" explaining why such a text is worthy of study (apparently because of the unsavory reputation the tantras had acquired in the West early in the 20th century. Writing in 1959 he was able to say, "There is still a tendency to regard them as something corrupt, as belonging to the twilight of Buddhism." The second volume contains his editions of the Sanskrit and Tibetan texts (the Tibetan text being taken from the snar thang Kengyur) as well as a Sanskrit text of the *Yogaratnamālā*. Another translation appeared in 1992 as *The Concealed Essence of the Hevajra-tantra.* by G.W. Farrow and I. Menon. This version contains the Sanskrit text and English translation of the tantra as well as a complete English translation of the *Yogaratnamālā*. An English translation from Fa-hu's Chinese version was made by Charles Willemen in 1983 and published as "The Chinese Hevajratantra". In 2008 the German scholar Jan-Ulrich Sobisch published a detailed literary history of Indian and Tibetan writings on Hevajra as it was seen through the eyes of A-mes-zhabs, a 17th-century master of the Sa-skya-pa tradition (Sobisch 2008).

Text: Originally written in mixed quality Sanskrit (with some verses in Apabhraṃśa), the present 750 verse text is reported to be but an excerpt or summary of a much larger, original text of up to 500,000 ślokas (verses) in 32 sections. Many Buddhist texts claim to be condensations of much larger missing originals, with most of the alleged originals either never having been found, or perhaps conceived of as "virtual" texts that exist permanently in some disembodied way. However, the existence of the 100,000 verse Prajnaparamita Sutra shows that works of such proportions were actually produced.

The Hevajra Tantra has some material in common with other sources: II iii 29 of the Hevajratantra is the same as XVI 59c-60b of the Guhyasamajatantra, and an Apabhraṃśa couplet at II v 67 of the Hevajratantra appears in one of Saraha's songs. In the case of the Guhyasamaja, it is safe to assume that the Hevajra version is later, but the case is not as clear cut with the Saraha quote, since the relative dates are harder to establish with any certainty.

Root Tantra

Hevajra mandala, 17th-century painting, Rubin Museum of Art RIGHT PIC Hevajra and Nairātmyā, surrounded by a retinue of eight ḍākinīs. Marpa transmission.

Dvātriṃśatkalpoddhṛtaḥ kalpadvayātmako śrīhevajraḍākinījālasamvaramahātantrarājā

- Manuscripts in the National Archives, Kathmandu, Nepal
  - No. 3-303.
  - No. 3-238.
  - No. 4-6.
  - No. 4-71.
- Manuscript in the Cambridge University Library, Add. 1340
- Manuscript belonging to the Asiatic Society of Bengal, no. 11317
- Manuscripts in the Tōkyō University Library: Nos 509-512[21]
- Editions:
  - Snellgrove
  - Farrow and Meno

Tibetan:

- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* - Narthang Kangyur, snar thang 369, vol. 80, rgyud (ka) 306b-351b
  - colophon: *rgyud kyi rgyal po sgyu ma'i brtag pa zhes bya ba brtag pa sum cu rtsa gnyis las phyung ba brtag pa gnyis kyi bdag nyid kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa'i rgyud kyi rgyal po chen po rdzogs so/ /rgya gar gyi mkhan po ga ya d+ha ra'i zhal snga*

nas dang/ bod kyi lo ts+tsha ba dge slong shAkya ye shes kyis bsgyur cing zhus te gtan la phab pa/
    - Edition: Snellgrove
- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* (Hevajratantrarājanāma) *Tōh. 417, sDe-dge Kangyur rgyud 'bum vol. nga, 1b-13b*
    - colophon: *kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa las rdo rje snying po mngon par byang chub zhes bya ba brtag pa'i rgyal po rdzogs so*
- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* Urga Kangyur, urga 418, vol.79, rgyud (nga), 1r-30r
    - colophon: *rgyud kyi rgyal po chen po sgyu ma'i brtag pa zhes bya ba brtag pa sum cu rtsa gnyis las phyung pa brtag pa gnyis kyi bdag nyid kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa'i rgyud kyi rgyal po rdzogs so/ /rgya gar gyi mkhan po ga ya d+ha ra'i zhal snga nas bod kyi lo ts+tsha ba dge slong shAkya ye shes kyis bsgyur cing zhus te gtan la phab pa/slar yang lo ts+tsha ba gzhon nu dpal gyis 'gyur chad bsabs shing dag par bgyis pa'o/*
- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* Stog Palace Kangyur, stog 379, Volume 94, rgyud bum (ga), 107r-148v
    - colophon: *rgyud kyi rgyal po sgyu ma'i brtag pa zhes bya ba brtag pa sum cu rtsa gnyis las phyung ba brtag pa gnyis kyi bdag nyid kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa'i rgyud kyi rgyal po chen po rdzogs so/ /rgya gar gyi mkhan po ga ya d+ha ra'i zhal snga nas dang/ bod kyi lo tsa ba dge slong shAkya ye shes kyis bsgyur cing zhus te gtan la phab pa*
- *kye'i rdo rje zhes bya ba rgyud kyi rgyal po* Lhasa Kangyur, lhasa 380, volume 79, rgyud (ka), 672-761
    - colophon: *rgyud kyi rgyal po sgyu ma'i brtag pa zhes bya ba brtag pa sum cu rtsa gnyis las phyung ba brtag pa gnyis kyi bdag nyid kye'i rdo rje mkha' 'gro ma dra ba'i sdom pa'i rgyud kyi rgyal po chen po rdzogs so/ /rgya gar gyi mkhan po ga ya d+ha ra'i zhal snga nas bod kyi lo ts+tsha ba dge slong shAkya ye shes kyis bsgyur cing zhus te gtan la phab pa*

Commentaries

- *Yogaratnamālā* by Kāṇha
- *Śrīhevajravyākhyākhyāvivaraṇa* by Bhadrapāda
- *Netravibhanga* by Dharmakīrtī
- *Smṛtiniṣpatti* (?) by Kāṇha
- *Vajrapādasārasaṃgraha* by Nāro
- *Muktāvalī* by Ratnākaraśānti
    - Sanskrit edition from five manuscripts by Ram Shankar Tripathi and Thakur Sain Negi in the series Bibliotheca Indo-Tibetica Series XLVIII, Central Institute for Higher Tibetan Studies, Sarnath, 2001.
- *Padminī* by Saroruha
- *Suviśuddhasaṃpuṭa* by Ṭankadāsa
- *Ṣaṭsāhasrikā-Hevajra-Ṭīkā* by Daśabhūmīśvara Vajragharba
    - Sanskrit edition from two incomplete mss, Tibetan edition, with English translation of Sanskrit portion and summary of remaining part, in Shendge, Malati J.,

2004. *Ṣaṭsāhasrikā-Hevajra-Ṭīkā: A Critical Edition*. Pratibha Prakashan, Delhi. "On this shorter tantra of 750 verses containing many vajrapadas which is selected from abother big tantra of five lakhs (500,000) of verses, is revealed this commentary, which owes its inspiration to Hevajra and which is known to contain 6000 verses and following mulatantra, by the illustrious Vajragarbha." (1.4-6)

Explanatory Tantras

- *Ḍākinīvajrapañjaratantra*
- *Saṃpuṭatantra*

Jigdal Dagchen Rinpoche closes the Hevajra Mandala of colored sand using a gold dorje below statue of Sakya Pandita

Hevajra has four forms described in the Hevajra Tantra and four forms described the Samputa Tantra:

Hevajra Tantra

Kaya Hevajra

The two armed Body (Kaya) Hevajra described in the Hevajra Tantra stands in an advancing posture on a multi-coloured lotus, corpse, and sun disk. He is dark blue in colour. His right hand holds a vajra club, and his left hand holds a vajra-marked skull cup. He embraces his consort Vajranairatma *(rDo-rje bDag-med-ma)*. A khatvanga staff rests on his left shoulder and he is adorned with the six symbolic ornaments.

In the *Sadhanamala* this form of Hevajra is single *(ekavira)* - without a consort.

Vak Hevajra

The four armed Speech (Vak) Hevajra described in the Hevajra Tantra stands in an advancing posture on a multi-coloured lotus, corpse, and sun disk. He is dark blue in colour. One right hand holds a vajra and one left hand a skull full of blood, the other pair of arms embrace his consort Vajravarahi *(rDo-rje phag-mo)*.

Citta Hevajra

The six armed Mind (Citta) Hevajra described in the Hevajra Tantra stands in an advancing posture with right leg extended and left bent on a multi-coloured lotus, corpse, and sun disk. He is dark blue in colour with three faces - C. blue, R. white and L. red. Each face has three blood shot eyes and four bared fangs, and frowns with knotted brows. His tawny hair streams up surmounted with a crossed vajra. Two right hands hold a vajra and a knife, two left a trident and a bell; the remaining pair of arms embrace his consort Vajrasrinkhala. Hevajra is imbued with the nine dramatic sentiments and adorned with a diadem of five dry skulls, a necklace of fifty fresh heads and the six symbolic ornaments or 'seals'.

Hrdaya Hevajra

The sixteen-armed, four-legged eight-faced Heart (Hrdaya) Hevajra described in the Hevajra Tantra stands with two legs in ardha-paryanka and the other two in alidha posture (left bent, right extended) on a multi-coloured eight petalled lotus, the four Maras in the forms of yellow Brahma, black Vishnu, white Shiva (Mahesvara) and yellow Indra and a sun disc resting on their hearts.

Sri Hevajra is 16 years old, black in color, naked, with eight faces, sixteen arms and four legs. His central face is black, the first right white, the first left red, the upper face smoke-coloured and ugly; the outer two faces on each side, black. All have three round blood shot eyes, four bared fangs, a vibrating tongue, and frowning with knotted brows. His lustrous tawny hair streams upward crowned with a crossed vajra. He is adorned with a diadem of five dry skulls. The sixteen hands hold sixteen skull cups. The central pair of arms skull contain a white elephant and the yellow earth-goddess Prithvi, and embrace his consort Vajranairatma *(rDo-rje bDag-med-ma)* whose two legs encircle his body. Her right hands holds a curved knife *(kartika)*, while the left is wrapped around the neck of her lord and holds a skullcup *(kapala)*. In the other seven skull cups held in Hevajra's outer right hands are: a blue horse, a white-nosed ass, a red ox, an ashen camel, a red human, a blue sarabha deer, and an owl or cat. In the skull cups in the outer seven left hands are the white water-god Varuna, the green wind-god Vayu, the red fire-god Agni / Tejas, the white moon god Chandra, the red sun god Surya or Aditya, blue Yama lord of death and yellow Kubera or Dhanada lord of wealth. Hevajra is adorned with the six symbolic ornaments: circlet, earrings, necklace, bracelets, girdle armlets and anklets and smeared with the ashes of the charnel ground. He wears a necklace of fifty freshly severed human heads.

Samputa Tantra

The four forms of Hevajra described in the Samputa Tantra all dance on a lotus, corpse, blood-filled skull cup and sun disk throne.

Kaya Hevajra

The two armed Kaya-Hevajra *(sku kyE rdo rje)* - "Shaker of all the Three Worlds" *('jig-rten gsum kun-tu bskyod-pa)* - stands in dancing posture on a multi-coloured lotus, corpse, blood-filled skull cup and sun disk. He is black in colour, with one face, three round red eyes, and two arms. His right hand wields a five pronged vajra club and the left hand holds a skull cup brimming with blood. He embraces his consort Vajranairatma *(rdo-rje bdag-med-ma)*, blue in colour, with one face and two arms, holding curved knife and skull cup.

Vak Hevajra

The four armed Vak-Hevajra *(sung kyE rdo rje)*, stands in dancing posture on a multi-coloured lotus, corpse, blood-filled skull cup and sun disk. He is black in colour with one face, three round red eyes two legs and four arms. The outer right hand wields a five pronged vajra club, the outer left hand holds a blood-filled skull-cup; the other pair of arms embrace his consort Vajravarahi *(rDo-rje phag-mo)*, who is similar to him.

Citta Hevajra

The six armed Citta-Hevajra *(thugs kyE rdo rje)* stands in dancing posture *(ardha paryanka)* with his right toenails pressed against his left thigh on an eight-petaled multi-coloured lotus, corpse, skull-cup brimming with blood, and sun disc. He is black, with three faces: black, white and red - each face having three round blood shot eyes. His light yellowish hair streams upwards crested with a crossed vajra, and he wears a diadem of five dry skulls. He is adorned with a necklace of fifty freshly severed human heads, the six symbolic ornaments and clad in a tiger skin skirt. The first pair of hands hold a vajra and bell embracing is consort Vajrasrnkhala, who is similar to him. The other right hands hold an arrow and a trident. The other left hands hold a bow and a skull cup.

Hrdaya Hevajra

The sixteen-armed, four-legged Hrdaya Hevajra *(snying po kyE rdo rje)* stands with two legs in dancing posture *(ardha paryanka)* and two in aleedha posture (right leg extended) on an eight-petalled multicoloured lotus are, the four Maras (Skanda Mara in the form of yellow Brahma, Klesa Mara as black Vishnu, Mrtyu Mara as white Shiva, Devaputra Mara as pale yellow Śakra), a blood filled skull-cup and sun disc. He is black in colour with eight faces, sixteen arms and four legs. The central face is black and laughing loudly, the right is white and the left is red, and the upper face black and bears its fangs; the other eight faces are black. Each face has three blod-shot eyes. His tawny hair flows upwards crested with a double vajra and he wears a diadem of five dry skulls. He is adorned with a necklace of fifty freshly severed human heads, the six symbolic ornaments and clad in a tiger skin skirt. His first pair of hands hold a vajra and bell, embracing his consort Nairatma blue in colour with two hands holding a curved knife (gri gug) and skull cup. Hevajra's remaining right hands hold a sword, arrow, wheel, skull cup, club, trident and hook; the remaining left hands hold a lotus, bow, trident, skull, jewel, threatening forefinger and noose.

Indonesian Esoteric Buddhism or **Esoteric Buddhism in Maritime Southeast Asia** refers to the traditions of Esoteric Buddhism found in Maritime Southeast Asia which emerged in the 7th century along the maritime trade routes and port cities of the Indonesian islands of Java and Sumatra as well as in Malaysia. These esoteric forms were spread by pilgrims and Tantric masters who received royal patronage from royal dynasties like the Sailendras and the Srivijaya.[1] This tradition was also linked by the maritime trade routes with Indian Vajrayana, Tantric Buddhism in Sinhala, Cham and Khmer lands and in China and Japan, to the extent that it is hard to separate them completely and it is better to speak of a complex of "Esoteric Buddhism of Mediaeval Maritime Asia." In many of the key South Asian port cities that saw the growth of Esoteric Buddhism, the tradition coexisted alongside Shaivism. Java under the Sailendras became a major center of Buddhism in the region, with monumental architecture such as Borobudur and Candi Sukuh. The capital of the Buddhist empire of Srivijaya in Palembang, Sumatra was another major center.The decline of Buddhist states and the rise of Islamic states in the region during the 13th-16th centuries saw the steep decline of this tradition.

13th century Javanese statue of Prajnaparamita, from the Cungkup Putri ruins near Singhasari temple.RIGHT A painting by G.B. Hooijer (c. 1916—1919) reconstructing the scene of Borobudur during its heyday

The diffusion of Esoteric Buddhism in the region began with the arrival of Indian Buddhist monks in the 7th century. These include the central Indian Atikuta (fl. 650s), the Chinese Punyodaya (fl 650s), Yijing (635-713), the South Indian Dharmaruci/Bodhiruci (d. 727), Nagabodhi, Vajrabodhi and Bianhong (the 8th century teacher of Kukai). The Chinese Buddhist monk Yijing reports that in the 7th century there was a Buddhist center in Java named Kalinga (Heling) to which Chinese monks traveled in order to study.

Another source of this Indonesian Tantric tradition was from Sri Lanka's Abhayagiri vihāra, a well known center of Vajrayana study and practice, which even established a branch monastery in Central Java in the 8th century with Sailendra patronage.

A stronghold of Esoteric Buddhism, the empire of Srivijaya (650 CE–1377 CE) patronized Buddhist monks and institutions and thus attracted pilgrims and scholars from other parts of Asia.[7] These included the Chinese monk Yijing, who made several lengthy visits to Sumatra on his way to study at Nalanda University in India in 671 and 695, and the Bengali Buddhist scholar Atisha (982-1054 CE) who played a major role in the development of Vajrayana Buddhism in Tibet. Yijing praised the high level of Buddhist scholarship in Srivijaya and advised Chinese monks to study there prior to making the journey to the great institution of learning, Nalanda Vihara, India. He wrote:

In the fortified city of Bhoga, Buddhist priests number more than 1,000, whose minds are bent on learning and good practice. They investigate and study all the subjects that exist just as in India; the rules and ceremonies are not at all different. If a Chinese priest wishes to go to the West in order to hear and read the original scriptures, he had better stay here one or two years and practice the proper rules.

Yijing was also responsible for the translation of a large numbers of Buddhist scriptures from Sanskrit into Chinese. He translated more than 60 sutras into Chinese such as the Golden Light Sutra. The *Account of Buddhism sent from the South Seas* & *Buddhist Monks Pilgrimage of Tang Dynasty* are two of Yi Jing's best travel diaries, describing his adventurous journey to Srivijaya and India, the society of India and the lifestyles of various local peoples.

In Java, the 8th century Shailendra dynasty promoted large scale Buddhist building projects such as Borobudur. Later central Javanese bronze and silver Buddhist images show Tantric themes such as mandalas and the Five Tathagatas

In the 13th century Buddhism thrived in Eastern Java, the Singhasari kingdom of King Kertanegara of Singhasari patronized Vajrayana. Buddhism continued to thrive under the Hindu-Buddhist Majapahit Empire (1293–1527). Their capital Trowulan had many annual festivities for Buddhism, Shaivism,

and Vaishnavism. Some of their kings were Vajrayana practitioners, such as King Adityawarman (1347–79) whose inscriptions state he was "always concentrated on Hevajra". A feature of Javanese Buddhism was the deification and worship of kings as Buddhas or Bodhisattvas. Important Buddhist deities included Prajnaparamita, Tara, Bhairava and Lokesvara.

The fall of Majapahit and the rise of Muslim states such as the Sultanate of Malacca saw the decline of Buddhism in the region. Many fled to the island of Bali after the end of Majapahit rule, where Buddhism was merged into Balinese Hinduism. This process of merging Buddhism and Hinduism predated the fall of the Majapahit however, and many textual sources from the later Hindu-Buddhist kingdom state that Hinduism and Buddhism are both two paths to the same reality and also equate the five Buddhas with five forms of Shiva. Likewise, some Majapahit temples depict both Buddhist and Shaiva elements.

The oldest extant esoteric Buddhist Mantranaya literature in Old Javanese, a language significantly influenced by Sanskrit, is enshrined in the *San Hyan Kamahayanikan* (possibly 8th century). The *San Hyan Kamahayanikan* claims that its teachings come from Dignaga.

The Tibetan Buddhist canon includes translations of texts written by Javanese masters, such as the *Durbodhaloka* (a commentary on the Abhisamayalamkara) of Suvarnadvipa Dharmakīrti.

Another work by an Indonesian Tantric Buddhist is Bianhong's *Ritual Manual for Initiation into the Great Mandala of the Usnisa-Cakravartin* which survives in the Chinese Taisho Tripitaka (T. 959).The Japanese master Kukai wrote a biography of Bianhong.

Architecture

Bahal temple I, in Padang Lawas, North Sumatra. One of the remnants of Pannai Kingdom.

Borobudur Stupas./The statue of Dhyani Buddha Vairocana, Avalokitesvara, and Vajrapani inside the Mendut temple

Various unique forms of Buddhist architecture developed in Indonesia and Malaysia the most common of which is the stone Candi which shows Indic influences as has been interpreted as a symbol of Mount Meru.

The Sailendras built many Buddhist structures in Java, including the massive stupa of Borobodur, as well as Candi Sukuh, Candi Mendut, Candi Kalasan and Candi Sewu. The Srivijayans also built Buddhist temple complexes in Sumatra, such as Muara Takus and Bahal temple and also in the Malay Peninsula, such as in their regional capital at Chaiya.[18] Majapahit also built Candis, such as Jabung, and Penataran.

Other architecture types include *punden*, small terraced sanctuaries built on mountains and *pertapaan*, hermitages built on mountain slopes.

Borobodur

The largest Buddhist stupa in the world is the 9th-century complex at Borobudur in central Java, built as a Mandala, a giant three-dimensional representation of Esoteric Buddhist cosmology. The temple shows Indian and local influences and is decorated with 2,672 relief panels and 504 Buddha statues. The reliefs depict stories from the Lalitavistara Sutra, Jataka tales and the Gandavyuha sutra.

Borobudur was abandoned sometime in the classic period, whether caused by human activity; of war or political turmoil, or natural disasters, as it lies on a volcanic plain of Merapi and other active volcanoes in central Java. There is no mention of Borobudur in any of Majapahit sources, implies that this structure already forgotten in the last classic-period. A major restoration project was undertaken between 1975 and 1982 by the Indonesian government and UNESCO and the monument is now a World Heritage Site. It is the most visited tourist attraction in Indonesia and it is still used by Buddhists for pilgrimage.

Candi Sukuh

Candi Sukuh is a fifteenth-century Javanese-Hindu-Buddhist temple (candi) that demonstrates strong tantric influence. Candi Sukuh is located on the western slope of Mount Lawu (elev. 910 m or 3,000 feet (910 m) above sea level) on the border between Central and East Java provinces. The monument was built around 1437, as written as a chronogram date on the western gate, meaning that the area was under the rule of the Majapahit Kingdom during its end (1293–1500). The distinctive Dancing Ganesha relief in Candi Sukuh has a similarity with the Tantric ritual found in the history of Buddhism in Tibet written by Taranatha. The Tantric ritual is associated with several figures, one of whom is described as the "King of Dogs" (Sanskrit: Kukuraja), the mahasiddha who taught his disciples by day, and by night performed *Ganacakra* in a burial ground or charnel ground. Importantly, Ganesha also appears in Buddhism, not only in the form of the Buddhist god *Vināyaka*, but also portrayed as a Hindu demon form also called *Vināyaka*. Ganesha's image may be found on Buddhist sculptures of the late Gupta period. As the Buddhist god *Vināyaka*, Ganesha is often shown dancing, a form called Nṛtta Ganapati that was popular in North India and adopted in Nepal and then into Tibet.

Hevajra in Cambodia: Hevajra may be a populatr diety in Tibet but a multiarmed form of Hevajra, but without his female consort, is found in Cambodia and Thailand. Tibet is where he belongs to the *yi-dam* (tutelary, or guardian, deity) class. His worship is the subject of the *Hevajra Tantra,* a scripture that helped bring about the conversion of the Mongol emperor Kublai Khan (1215–94).

Hevajra united with his female consort; Lamaist bronze, early 19th century; in the Rijksmuseum voor Volkenkunde, Leiden, Neth.
Rijksmuseum voor Volkenkunde, Leiden, Netherlands

Hevajra is represented in art as blue in colour, with a headdress of skull crowns topped by a figure of the buddha Akshobhya. He is characteristically shown with 8 heads, 4 legs, and 16 arms. The arms on the left hold skull cups containing various divinities, the ones on the right their steeds. The term *Hevajra* is a

name of the central male deity of the *maṇḍala* described in the text of that name, the *Hevajra Tantra*. The image of Hevajra, which is an idealized image of a yogin, has arisen due to a tradition and also the associated textual and ritual practices, originated among the communities of renunciants, who constituted what might be termed the "*siddha* movement" and who from the eighth century onward were an important influence on the development Buddhist Tantric traditions.

The *Hevajra Tantra*, while a Buddhist scripture with identifiably Buddhist elements, was heavily influenced by this movement. Composed by the late eighth century, the *Hevajra Tantra* exhibits the charnel-ground culture of the *siddha* movement, with its emphasis on transgressive practices, particularly in the areas of sexuality and food consumption. Classified as a *"Yoginī"* or "Mother" Tantra, it also places great emphasis upon female deities, although it is arguable to what extent, if any, this translated into increased respect for women. Like most Tantras, the majority of the text deals with ritual, with great focus placed upon magical rites employing *mantras*, often for worldly purposes such as affecting the weather. It is also noticeable for its employment of songs written in the Apabraṃśa dialect, as well as its prescription of a "coded language" (*sandhyā-bhāṣā*) for use by yogins and *yoginīs* in their Tantric feasts. This has been a topic of great interest for scholars, past and present. In traditional Indian and Tibetan Buddhist contexts, the *Hevajra Tantra* played an important role in the development of Tantric hermeneutics, and it thus made an important contribution to Buddhist scholarship from the ninth century onward. This "coded language," which has been previously translated as "twilight language," has also been a serious object of study since the mid-twentieth century, and its interpretation has inspired some controversy.

The *Hevajra Tantra* and its ritual and meditative traditions focus upon a *maṇḍala* as its central iconographic feature. The *maṇḍala* also functions as the premier site for its ritual practices, such as consecration (*abhiṣeka*) ceremonies, and its meditative practice, since many meditations in the tradition require that the adept either visualize himself or herself within the *maṇḍala*, or view the *maṇḍala* as existing within his or her body. While there are many different types of *Hevajra maṇḍalas*, probably the best-known version is the relatively simple "skull cup–bearing" (*kapāladharin*) *maṇḍala*, so called because it centers upon Kapāladharī Hevajra, who in this form has sixteen arms, each of which holds a skull cup. He is depicted as being in sexual union with his consort, Nairātmyā. They are in turn surrounded by a circle of eight *yoginīs* : Gaurī, Śavarī, Caurī, Caṇḍalī, Vetālī, Ḍombinī, Ghasmarī, and Pukkasī. Because the central deity couple are said to be "nondual," it is described as being a nine-deity *maṇḍala*.

The Hevajra tradition is particularly noted for its theory of the four joys (*caturānanda*) achieved via sexual union in the context of Perfection Stage meditation practices that involve focused attention upon the subtle body, and the manipulation of "winds" of vital energy and "drops" of subtle sexual fluids within this body's channels. Of greatest importance is the fourth of these, the "natural joy" (*sahajānanda*). The concept of the "natural" *sahaja* state became an important element in the discourse of the *siddha* movement in India, and it has retained its significance to this day among communities of Tantric Buddhists, particularly in Nepal, Tibet, Mongolia, and elsewhere in the diaspora.

The *Hevajra Tantra* was translated into Chinese by Dharmapāla (963–1058) in 1055 ce, but like other Buddhist Tantras that were translated into Chinese at this time, its practice does not appear to have taken root in China. It was, however, successfully transmitted to Tibet. It was one of the central teachings that the Tibetan scholar Mar pa (Marpa, 1002/12–1096) received from the Indian saint Nāropa (c. 966–1040), and Mar pa in turn passed it on to his famous disciple Mi la ras pa (Milarepa, 1028/40–1111/23), whose disciples would found the Bka' brgyud (Kagyu) orders of Tibetan Buddhism, which continue to transmit the *Hevajra* tradition as one of their central teachings. It was also transmitted to Tibet by one of Mar pa's contemporaries, the translator-scholar 'Brog mi (Dok-mi, 992–1072), who studied at Vikramaśila in Northeast India with Ratnākaraśānti (c. eleventh century). He in turn instructed Dkon mchog rgyal po (Könchog Gyalpo, 1034–1102), one of the founders of the Sa skya (Sakya) school of Tibetan Buddhism.

The *Hevajra Tantra* would become one of the central teachings of the Sa skya school, and it provides the basis for its "Path and Fruit" (*lam 'bras*) system of Perfection Stage yoga.

The Sa skya school also played an essential role in the dissemination of Buddhism to the Mongols. During the Yuan dynasty, the Mongols achieved hegemony over Tibet and appointed the Tibetan Sa skya Paṇḍita (Sakya Paṇḍita, 1182–1251) to be their governor of Tibet in 1249. His nephew, the Sa skya lama 'Phags pa (Pakpa, 1235–1280), became a friend and advisor of Kublai Khan (1216–1294). Tibetan interactions with the Mongols continued for centuries following the collapse of the Yuan dynasty in 1368 ce, and the *Hevajra Tantra* was among the many texts and traditions successfully transmitted to the Mongols.

Four Vajra-Deities

Indonesia, East Java, Nganjuk, Chandi Reja; late 10th - early 11th century
Copper alloy
Each, approx., H. 3 1/4 in. (8.3 cm)
Mr. and Mrs. John D. Rockefeller 3rd Collection of Asian Art
1979.087.1-4

These four deities from a large set of small bronze sculptures discovered in 1913 in the village of Chandi Reja in East Java illustrate the importance of Vajrayana (Esoteric) Buddhism in Java. The figures were once part of a larger set of perhaps as many as ninety sculptures that formed a three-dimensional mandala, or cosmic diagram. Scholars generally agree that these sculptures were part of a Diamond Realm (*Vajradhatu*) mandala. In Vajrayana Buddhist thought, mastery of both the Diamond Realm, which symbolizes wisdom, and the Womb Realm (*Garbhadhatu*), which symbolizes practice, is necessary in order to achieve enlightenment. The small size of these figures suggests that they were placed in the outer rings of the mandala, where they functioned as attendants for the more important deities in the inner part. The crowns and jewelry are different for each deity as are the objects they hold in their hands.

Nairatmya, Central Tibet, sixteenth century. Gilt copper inset with turquoise, painted with red pigment, H9.25 in. (23.5 cm). Los Angeles County Museum of Art, From the Nasli and Alice Heeramaneck Collection, purchase, M.70.1.4. Nairatmya represented as a seated yogini, her face ablaze with all-seeing wisdom.

Nairātmyā or **Dagmema** (Wylie: *bdag med ma*) is a yoginī in Buddhism, the consort of Hevajra in the Hevajra-tantra. The name means "she who has no self (ātman)". Nair-ātmyā is the feminine form of nairātmya which comes from nirātman (the Sanskrit negative particle "niḥ" combined with the masculine noun for self-"ātman"); nairātmya means "of nirātman", and in the feminine form, nairātmyā, "she who

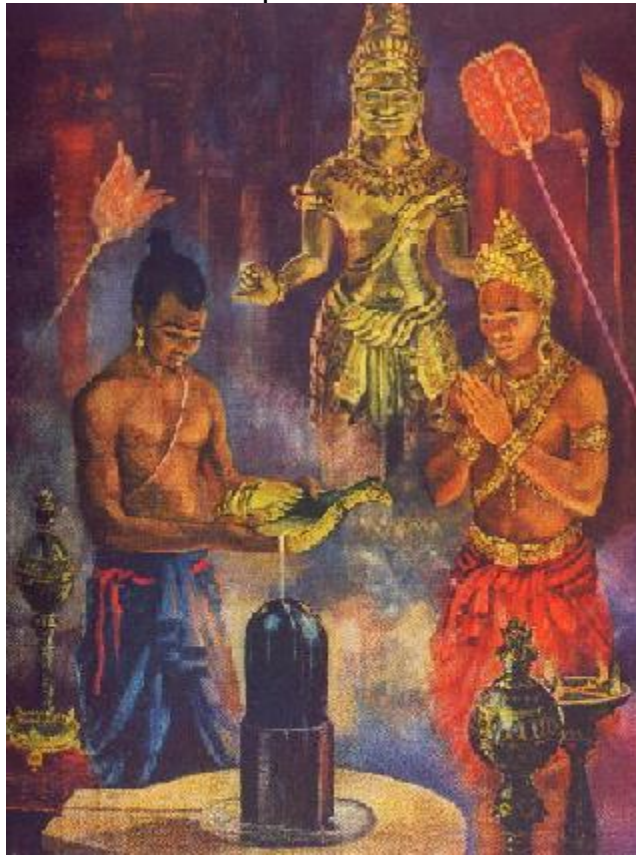
has no self". Nair-ātmyā, the no-self female, that is, she who has no self. She is an embodiment of the Buddhist philosophical concept of anātman (anatta in Pāli).

Hevajra, c. 1200. Cambodia, reign of Jayavarman 7th. Bronze. Overall: 46 × 23.9 cm (18 1/16 × 9 3/8 in.). Cleveland Museum of Art, Gift of Maxeen and John Flower in honor of Dr. Stanislaw Czuma 2011.143.

There is also a presence of Hevajra and other tantric deities at Angkor. These have been the subject of much speculation, and art historians in particular have done much to locate these deities in Angkor's religious world. There continue to be many different hypotheses, but none, as far as I can tell, present an explanation of the extent of tantric practice. Perhaps these deities were understood much as bodhisattvas mentioned above, powerful and wise deities to be invoked for merit, material benefit, and (for some) to be internalized as components of consciousness.

Chapter 5

The Diversity of Angkorian Kings

Modern Cambodia has been shaped significantly by the ideological nationalism introduced in the French colonial period. It was at that time, for instance, that Khmers receptive to French ideas of civilization and racial hierarchy began to think of themselves as the collective inheritors of Angkor's greatness, and it was only then that the current word for nation, race, or ethnic group, jāti, entered the Khmer lexicon via Thailand. One can make a persuasive case that an idea of nationality could not have existed prior to the introduction of the term for nation into the language.1

The Khmer Empire, or the Angkorian Empire are the terms that historians use to refer to Cambodia from the 9th century to the 15th century when the nation was a Hindu-Buddhist empire in Southeast Asia. The empire grew out of the former civilizations of Funan and Chenla, at times ruled over and/or vassalised most of mainland Southeast Asia[3] and parts of Southern China, stretching from the tip of the Indochinese Peninsula northward to modern Yunnan province, China, and from Vietnam westward

to Myanmar. At its peak, the Khmer Empire was larger than the Byzantine Empire (Eastern Roman Empire) which existed around the same time.

Perhaps its most notable legacy is the site of Angkor, in present-day Cambodia, the Khmer capital during the empire's zenith. The majestic monuments of Angkor, such as Angkor Wat and Bayon, bear testimony to the Khmer Empire's immense power and wealth, impressive art and culture, architectural technique, aesthetics achievements, and the variety of belief systems that it patronised over time. Satellite imaging has revealed that Angkor, during its peak in the 11th to 13th centuries, was the largest pre-industrial urban centre in the world.

The beginning of the era of the Khmer Empire is conventionally dated to 802, when King Jayavarman II declared himself *chakravartin* ("universal ruler", title equivalent to "emperor") on Phnom Kulen. The empire ended with the Siege of Angkor by the Siamese Ayutthaya Kingdom in 1431. Modern scholars often refer to the empire as the *Khmer Empire*, or the *Angkorian Empire*, the latter of which has its named derive from the former capital city of Angkor.

कम्बुजदेश

The empire referred to itself as Kambuja (Sanskrit: कम्बोज) or Kambujadeśa (Sanskrit: कम्बुजदेश; which were ancient terms for *Cambodia*. The history of Angkor as the central area of settlement of the historical kingdom of Kambujadesa is also the history of the Khmer kingdom from the 9th to the 13th centuries.

From Kambuja itself—and so also from the Angkor region—no written records have survived other than stone inscriptions. Therefore, the current knowledge of the historical Khmer civilisation is derived primarily from:

- Archaeological excavation, reconstruction and investigation
- Stone inscriptions (the most important of which are foundation steles of temples), which report on the political and religious deeds of the kings
- Reliefs in a series of temple walls with depictions of military marches, life in the palace, market scenes, and the daily life of the population
- Reports and chronicles of Chinese diplomats, traders and travellers.

Formation and growth

Jayavarman II – the founder of Angkor

Archers mounted on elephants

According to Sdok Kok Thom inscription, circa 781 Indrapura was the first capital of Jayavarman II, located in Banteay Prey Nokor, near today's Kampong Cham. After he eventually returned to his home, the former kingdom of Chenla, he quickly built up his influence, conquered a series of competing kings, and in 790 became king of a kingdom called Kambuja by the Khmer. He then moved his court northwest to Mahendraparvata, far inland north from the great lake of Tonlé Sap.

Jayavarman II (802–835) is widely regarded as a king who set the foundations of the Angkor period in Cambodian history, beginning with a grandiose consecration ritual that he conducted in 802 on the sacred Mount Mahendraparvata, now known as Phnom Kulen, to celebrate the independence of Kambuja from a place inscriptions call "Java"] At that ceremony Prince Jayavarman II was proclaimed a universal monarch (Cambodian: *Kamraten jagad ta Raja*) or God King (Sanskrit: *Deva Raja*) or "The Lords of Mountains", hence the concept of Deva Raja or God King was ostensibly imported from Java.

He declared himself Chakravartin in a ritual taken from the Hindu tradition, thereby not only becoming the divinely appointed and therefore uncontested ruler, but also simultaneously declaring the independence of his kingdom from Java. According to some sources, Jayavarman II had resided for some time in Java during the reign of Sailendras,[14]:35 or "The Lords of Mountains", hence the concept of Deva Raja or God King was ostensibly imported from Java. At that time, Sailendras allegedly ruled over Java, Sumatra, the Malay Peninsula and parts of Cambodia, around the Mekong delta.

The first pieces of information on Jayavarman II came from the K.235 stone inscription on a stele in Sdok Kok Thom temple, Isan region, dating to 1053. It recounts two and a half centuries of service that members of the temple's founding family provided for the Khmer court, mainly as chief chaplains of the Shaivite Hindu religion.

Historians debate whether "Java" means the Indonesian island of Java, Champa or a different location. According to an older established interpretation, Jayavarman II was a prince who lived at the court of Sailendra in Java and brought back to his home the art and culture of the Javanese Sailendran court to Cambodia. This classical theory was revisited by modern scholars such as Claude Jacques and Michael Vickery, who noted that Khmer used the term *chvea* to describe the Chams, their close neighbours. Moreover, Jayavarman's political career began at Vyadhapura (probably Banteay Prey Nokor) in eastern Cambodia, which makes the scenario of longtime contacts with the Chams (even through skirmishes, as the inscription suggests) more probable than the scenario of a long stay in distant Java.[19] Finally, many early temples on Phnom Kulen show both Cham (e.g. Prasat Damrei Krap) and Javanese influences (e.g. the primitive "temple-mountain" of Aram Rong Cen and Prasat Thmar Dap), even if their asymmetric distribution seems typically Khmer.

In the following years, he extended his territory and, later in his reign, moved from Mahendraparvata and established his new capital of Hariharalaya near the modern Cambodian town of Rolous. He thereby laid the foundation of Angkor, which was to arise some 15 km to the northwest. Jayavarman II died in the year 835 and he was succeeded by his son Jayavarman III. Jayavarman III died in 877 and was succeeded by Indravarman I.

The successors of Jayavarman II continually extended the territory of Kambuja. Indravarman I (reigned 877–889) managed to expand the kingdom without wars and initiated extensive building projects, which were enabled by the wealth gained through trade and agriculture.

Foremost were the temple of Preah Ko and irrigation works. Indravarman I developed Hariharalaya further by constructing Bakongm circa 881. Bakong in particular bears striking similarity to the Borobudur temple in Java, which strongly suggests that it served as the prototype for Bakong. There must have been exchanges of travelers, if not missions, between the Khmer kingdom and the Sailendras in Java, transmitting to Cambodia not only ideas, but also technical and architectural details.

Yasodharapura – the first city of Angkor

1. Bakong, one of the earliest temple mountains in Khmer architecture
2. Banteay Srei, a 10th-century Cambodian temple dedicated to the Hindu god Shiva
3. Ta Keo, a state temple built around the year 1000
4. Baphuon, a temple-mountain dedicated to the Hindu God Shiva

Indravarman I was followed by his son Yasovarman I (reigned 889 – 915), who established a new capital, Yasodharapura – the first city of Angkor. The city's central temple was built on Phnom Bakheng, a hill which rises around 60 m above the plain on which Angkor sits. Under Yasovarman I the East Baray was also created, a massive water reservoir of 7.1 by 1.7 km.

At the beginning of the 10th century, the kingdom split. Jayavarman IV established a new capital at Koh Ker, some 100 km northeast of Angkor, called Lingapura. Only with Rajendravarman II (reigned 944–968) was the royal palace returned to Yasodharapura. He took up again the extensive building schemes of the earlier kings and established a series of temples in the Angkor area, not the least being the East Mebon, a temple located on an artificial island in the center of the East Baray, and several Buddhist temples, such as Pre Rup, and monasteries. In 950, the first war took place between Kambuja and the kingdom of Champa to the east (in the modern central Vietnam).

The son of Rajendravarman II, Jayavarman V, reigned from 968 to 1001. After he had established himself as the new king over the other princes, his rule was a largely peaceful period, marked by prosperity and a cultural flowering. He established a new capital slightly west of his father's and named it Jayendranagari; its state temple, Ta Keo, was to the south. At the court of Jayavarman V lived philosophers, scholars, and artists. New temples were also established: the most important of these are Banteay Srei, considered one of the most

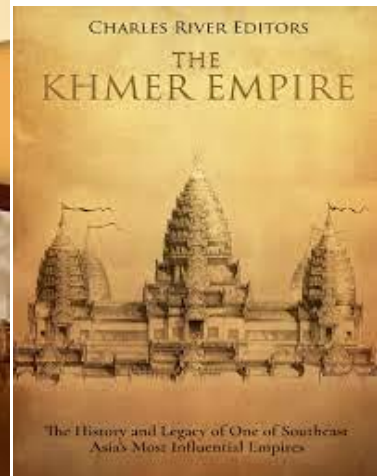
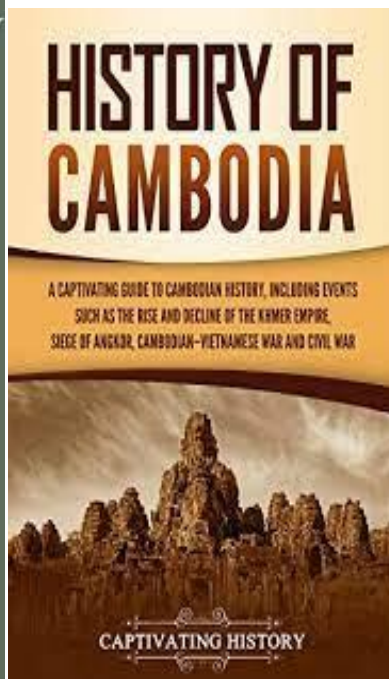
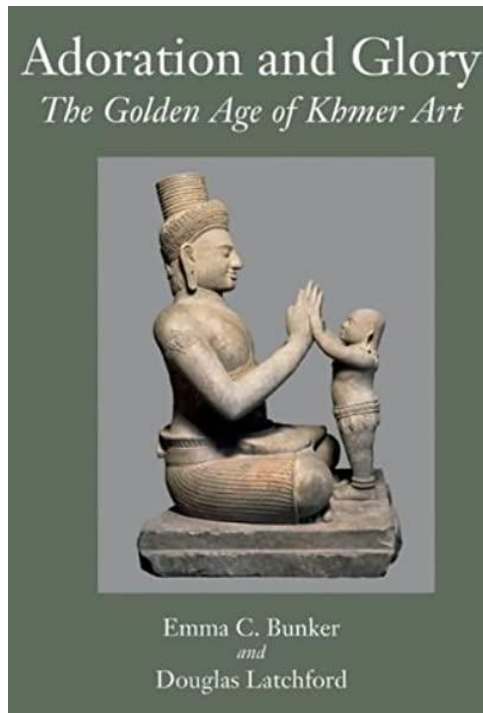
beautiful and artistic of Angkor, and Ta Keo, the first temple of Angkor built completely of sandstone.

The pyramid of Koh Ker. Koh Ker was briefly the capital of the Khmer Empire

A decade of conflict followed the death of Jayavarman V. Three kings reigned simultaneously as antagonists until Suryavarman I (reigned 1006 – 1050) gained the throne. Suryavarman I established diplomatic relations with the Chola dynasty of south India. Suryavarman I sent a chariot as a present to the Chola Emperor Rajaraja Chola I. His rule was marked by repeated attempts by his opponents to overthrow him and by military conquests. Suryavarman was successful in taking control of the Khmer capital city of Angkor Wat.

At the same time, Angkor Wat came into conflict with the Tambralinga kingdom of the Malay peninsula. In other words, there was a three-way conflict in mainland Southeast Asia. After surviving several invasions from his enemies, Suryavarman requested aid from the powerful Chola Emperor Rajendra Chola I of the Chola dynasty against the Tambralinga kingdom. After learning of Suryavarman's alliance with Rajendra Chola, the Tambralinga kingdom requested aid from the Srivijaya King Sangrama Vijayatungavarman.

This eventually led to the Chola Empire coming into conflict with the Srivijaya Empire. The war ended with a victory for the Chola dynasty and of the Khmer Empire, and major losses for the Srivijaya Empire and the Tambralinga kingdom. This alliance also had religious nuance, since both Chola and Khmer empire were Hindu Shaivite, while Tambralinga and Srivijaya were Mahayana Buddhist. There is some indication that before or after these incidents Suryavarman I sent a gift, a chariot, to Rajendra Chola I to possibly facilitate trade or an alliance. Suryavarman I's wife was Viralakshmi, and following his death in 1050, he was succeeded by Udayadityavarman II, who built the Baphuon and West Baray. In 1074, conflict arose between Harshavarman III and the Champa King Harivarman IV.

Golden age of Khmer Civilization

Suryavarman II – Angkor Wat- Khmer–Cham wars

The 12th century was a time of conflict and brutal power struggles. Under Suryavarman II (reigned 1113–1150) the kingdom united internally and the large temple of Angkor was built in a period of 37 years: Angkor Wat, dedicated to the god Vishnu. Khmer–Cham wars were a series of conflicts and contests between states of the Khmer Empire and Champa, later involving Đại Việt, that lasted from the mid-10th century to the early 13th century in mainland Southeast Asia. The first conflict began in 950 CE when Khmer troops sacked the Cham principality of Kauthara. Tensions between the Khmer Empire and Champa reached a climax in the middle of the 12th century when both deployed field armies and waged devastating wars against each other. The conflicts ended after the Khmer army voluntarily retreated from occupying Champa in 1220.

Suryavarman 2

Vietnamese war elephant and soldiers pottery figure

Around 950, the Khmer under Rajendravarman II pillaged the temple of Po Nagar in Kauthara and carried off the statue of the goddess. The invasion however ended in a "bloody defeat".[1] In 965, the Cham King Jaya Indravaman I restored the temple and rebuilt the statue of the goddess to replace the one stolen by the Khmer.

Khmer Invasion of Northern Champa(1074-1080)

In 1074, Harivarman IV became king of Champa. He had close ties to Song China and made peace with Dai Viet, but provoked a war with the Khmer Empire. In 1080, a Khmer army attacked Vijaya and other centers in northern Champa. Temples and monasteries were sacked and cultural treasures were carried off. After much chaos, Cham troops under King Harivarman were able to defeat the invaders and restore the capital and temples.[6] Subsequently, his raiding forces penetrated Cambodia as far as Sambor and the Mekong, where they destroyed all religious sanctuaries.

Suryavarman's Wars(1128-1150)Khmer–Vietnamese war (1123–1150)

In 1127, Suryavarman II demanded Vietnamese king Lý Dương Hoán to pay tribute for the Khmer Empire, but the Vietnamese refused. Suryavarman decided to expand his territory northward into Vietnamese territory. The first attack was in 1128 when King Suryavarman led 20,000 soldiers from Savannakhet to Nghệ An, where they were routed in battle. The following year Suryavarman continued skirmishes on land and sent 700 ships to bombard the coastal areas of Đại Việt. In 1132, he persuaded Cham king Jaya Indravarman III to join forces with him to attack Đại Việt, where they briefly seized Nghệ An and pillaged the coastal districts of Thanh Hoá.

In 1136, a Vietnamese force under Đỗ Anh Vũ counterattacked the Khmer Empire across modern-day Laos with 30,000 men, but later retreated. The Cham thereupon made peace with the Vietnamese, and when Suryavarman renewed the attack, Jaya Indravarman refused to cooperate with the Khmers.[7] After a failed attempt to seize seaports in southern Đại Việt, Suryavarman turned to invade Champa in 1145 and sacked Vijaya, ending the reign of Jaya Indravarman III and destroying the temples at Mỹ Sơn. In 1147 when a Panduranga prince named Sivänandana was enthroned as Jaya Harivarman I of Champa, Suryavarman sent an army consisting of Khmers and defected Chams under the command of the senäpati Sankara to attack Harivarman, but was defeated in the battle of Räjapura in 1148. Another stronger Khmer army also suffered the same wretchedness fate at the battles of Virapura (present-day Nha Trang) and Caklyaṅ. It is conjectured that both Räjapura, Virapura, and Caklyaṅ's modern-day precise locations are unknown, but proposes that those medieval locations should be somewhere between Qui Nhon and Phan Rang.

Unable to overwhelm the Cham, Suryavarman appointed Prince Harideva, a Cham royalty of Cambodian background, as the puppet king of Champa in Vijaya. In 1149, Harivarman marched his army northward to Vijaya, besieged the city, vanquished Harideva's army at the battle of Mahisa, then executed Harideva along with all of his Cambodian–Cham officials and military, therefore ended Suryavarman's occupation of northern Champa. Harivarman then reunited the kingdom. A royal pretender, Vamsaraja, attacked Harivarman with highland troops but was defeated and escaped to Đại Việt. Later Vamsaraja was crushed by Harivarman and slain during the Battle of Mỹ Sơn in 1150.

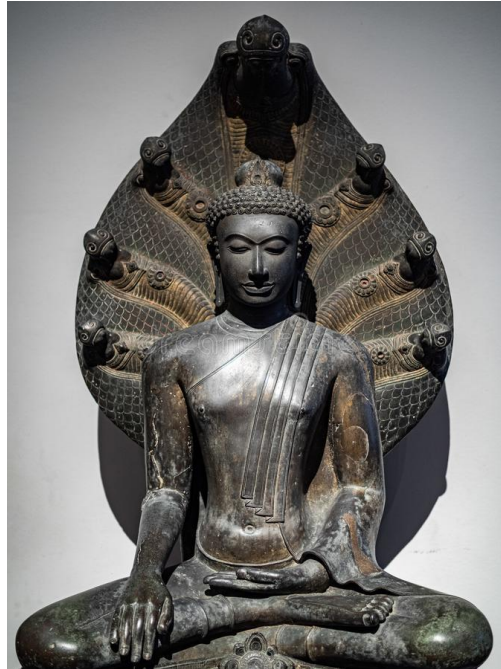
Cham Invasion of Angkor(1170,1177-1181 and the Battle of Tonlé Sap

After securing peace with Đại Việt in 1170, Cham forces under Jaya Indravarman IV invaded the Khmer Empire over land with inconclusive results. In 1177, however, his troops launched a surprise attack against the Khmer capital of Yasodharapura from warships piloted up the Mekong River to the great lake Tonlé Sap and killed the Khmer king Tribhuvanadityavarman. Multiple-bow siege crossbows were introduced to Champa from Song dynasty in 1171, and later were mounted on the backs of Cham and Vietnamese war elephants. They were deployed by the Cham during the siege of Angkor, which was defended only by wooden palisades, leading to the Cham occupation of Cambodia for the next four years.

The Khmer empire was in the verge of collapse. Jayavarman VII from the north coalesced an army to battle the invaders. He had campaigned against the Chams during in his youth in the 1140s and participated a campaign in Cham capital Vijaya. His army won a series of unprecedented victories over the Cham, and by 1181 after winning a decisive naval battle, Jayavarman had rescued the empire and expelled the Cham.

Conquest of Champa: In 1190, the Khmer king Jayavarman VII appointed a Cham prince named Vidyanandana, who had defected to Jayavarman in 1182 and had been educated at Angkor, to lead the Khmer army. Vidyanandana defeated the Chams, and proceeded to occupy Vijaya and capture Jaya Indravarman IV, whom he sent back to Angkor as a prisoner. Adopting the title of Shri Suryavarmadeva (or Suryavarman), Vidyanandana made himself king of Panduranga, which became a Khmer vassal. He made Prince In, a brother-in-law of Jayavarman VII, "King Suryajayavarmadeva in the Nagara of Vijaya" (or Suryajayavarman). In 1191, a revolt at Vijaya drove Suryajayavarman back to Cambodia and enthroned Jaya Indravarman V. Vidyanandana then re-occupied Vijaya, killed both Jaya Indravarman IV and Jaya Indravarman V, then "reigned without opposition over the Kingdom of Champa," declaring his independence from the Khmer Empire. The Khmer later also had double bow crossbows mounted on elephants, which Michel Jacq Hergoualc'h suggest were elements of Cham mercenaries in Jayavarman VII's army.

Khmer armies under Jayavarman VII continued campaigning against Champa until the Chams were finally defeated in 1203. A Cham renegade-Prince ong Dhanapatigräma, overthrew and expelled his ruling nephew Vidyanandana/Suryajayavarmadeva to Dai Viet, completed the Khmer conquest of Champa. From 1203 to 1220, Champa as a Khmer province was ruled by a puppet government led by either ong Dhanapatigräma and then prince Angsaräja, son of Harivarman I, who would later become Jaya Paramesvaravarman II. In 1207, Angsaräja led Khmer army with Burmese and Siamese contingents and battled Dai Viet army. Following the voluntary Khmer evacuation of Champa and dwindling Khmer military presence, Angsaräja took over the reins of government peacefully, proclaimed himself Jaya Paramesvaravarman II, and restored Champa's independence.

ROYAL ETHNICITIES

Buddha image in the gesture of touching earth and sheltered by serpents 1.King Jayavarman II (802-835 AD), came from Java, where he had been in captivity or exile, to succeed to the throne as Java's vassal around 800. An unwilling puppet, he defied the Javanese and asserted His independence in 802, when he also was installed under Hindu rites as devarāja, or god-king. He established a series of capitals, first at Indrapura, on the lower Mekong River east of Kâmpóng (Kompong) Cham; then, moving northwards, at Hariharalaya, southeast of present-day Siĕmréab (Siem Reap); and then at Mahendraparvata, in the region just north of the Tonle Sap (Great Lake), not far from Angkor, the next seat of the Angkor Empire, which remained its capital for 600 years.

2.King Jayaviravarman (1002-1006 AD), The origin of this prince is uncertain: According Achilles Dauphin-Meunier, he was the rightful successor and brother of Udayadityavarman I, who lives climbing the pretensions of a usurper, Suryavarman I, but managed to stay in Yaçodhapura.

George Coedès, who considers him a usurper, believes that Jayaviravarman was the prince of the city of Tambralinga (Tamil-Melayu), was an Indianised Kingdom. Nowadays, Nakhon Si Thammarat Province, Thailand, and that he takes power and reigns in Angkor. MJ Boisselier awards him Ta Keo. In any case, Jayaviravarman disappears after a nine-year civil war.

3.King Suryavarman I (1006 -1050 AD), Said to have been a son of a King of Tambralinga (Tamil-Melayu), was an Indianised Kingdom. Nowaday, Nakhon Si Thammarat Province Thailand, and to have claimed his right to the same throne. He based his right on the claim of descent through his mother, from the maternal line of Indravarman I.

4.King Jayavarman VI (1090-1107 AD), at the present town of Phimai, in the Khorat Plateau or Upper Mun River Valley, which became territory of Thailand after the conquest by Ayutthaya at beginning of the 15th century.2 Vimayapura was created as the provincial capital of the Khmer empire when the attention of the kings focussed on this region at the end of the 11th century, around one hundred years after seizing it from the previous leader of Mon Dvaravati(Easthern Dvaravati) occupants.3 At that time, the Mahidhapura dynasty (Jayavarman vi – Suryavarman ii) wanted to establish a power base to the north of the Dang Raek mountain range (Dagens 2003, 30; Hendrickson 2007, 196–97) and construct a roadway connecting it to the capital of the empire, Yashodharapura (Angkor).4 Furthermore, King Jayavarman vi was born in the region of modern Phimai (Higham 2003, 107) and the city was strategically located on an ancient trade route from Khorat to the Chao Phraya Delta

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Modern Cambodia has been shaped significantly by the ideological nationalism introduced in the French colonial period. It was at that time, for instance, that Khmers receptive to French ideas of civilization and racial hierarchy began to think of them....

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Suryavarman-II as depicted on Angkor Frescos

Chapter 6

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Chapter 7

INTRODUCTION TO HINDU ASTROLOGY in Angkor

There was Astrology of the Hindu genere practiced in Angkor… but the question arises…

What is Jyotish?

Jyotish is the oldest system of astrology in the world. It's derived from the Sanskrit word "jyoti" which means light. As the pure light of scientific knowledge, the word Jyotish implies studying a person's character, health, habits and even the future on the basis of his or her birth chart.

In western cultures, it is often referred to as Indian, Vedic or Hindu astrology. The awareness about Jyotish can be traced back to the Vedic civilization in northern India. Jyotish is a part of the Indian Vedic Scriptures, proof of which is easily available in the centuries old manuscripts and translations.

Jyotish is practiced by a skilled astrologer by calculating the positions of the planets and other celestial bodies with regard to a person's birth or happening of an event. In essence, it depends on the time, date and place of birth or the event. The results, if calculated accurately, lead to generation of numerous tables and charts that only a skilled astrologer can study and derive useful information from. The rules of interpretation of these charts are also based on the study done by ancient sage-scientists. Normally, such a study takes about 10-15 hours to complete and is followed by a decision about appropriate remedial actions that can be taken to enhance the person's life.

According to Vedic astrology (the astrology of ancient India), the reason astrology works is that the positions of the planets and stars at the moment of your birth reveal the map of your life, and the results of your "karmas" from past lives.

Vedic astrology is basically based on astronomy.Astrological predictions are based on the placement of stars,planets and zodiac at the time of birth of a native.The kundali is

just a pictorial representation of the zodiac.The degrees of planet and which sign it is placed,conjunction of planets are studied in great detail before giving predictions.

The basic requirement for predictions through vedic astrology are:

1)Birth time native

2)Birth place of native

3)Date of Birth of the native

On the above three basis the Kundali is created which is basically pictorial representation of Zodiac.

Then the chart is studied in great detail i.e strength of house ,strength of planets,conjunction,exaltation and debilitation of planets,nakshatras,dasha(vimosattari or rasi dasa),divisonal charts,bhav chalit,planetary aspects on different houses and different yogas.

Then after analyzing the chart depending on the strength and weakness of planets the astrologer may suggest Gemstone.The study of gemstones also comes under the vedic astrology which gives solution or try to reduce the problem of native.

The Time of Your Life : In ancient Vedic literature, the horoscope and the zodiac are often called “the kala chakra” or “wheel of time.”
It’s like your astrology chart is a clock that shows the timing of your life.
But instead of three hands (indicating seconds, minutes, and hours) it’s got ten – made up of your rising sign, Sun, Moon, Mars, Mercury, Jupiter, Venus, Saturn, and Rahu and Ketu (eclipse points also known as “the nodes” of the Moon).
Timing Is On Your Side : You can’t change your clock, but you can make peace with it and make the most of your life by understanding it. It’s such a relief to know what will happen and when, and what WON’T happen, no matter how hard you try…
This is why Vedic astrology is considered so deeply spiritual, and a vital part of understanding your place in the Universe.
You’re living with forces way beyond your control or understanding that are bigger than your will – and not your fault.
If you’d like to learn more about the timing and power of your personal life clock, check out a thirty-year report I’ve created called Cycles of Saturn – Charting the Ups and Downs of Your Life and How To Make the Most of Them.

Vedic astrology works properly because the positions of the planets and stars at the moment of your birth reveal the map of your life and the results of your karmas from your past lives. A great spiritual teacher from India, wrote somewhere, “ A child is born on that day and at that hour when the celestial rays are in mathematical harmony with

his individual karma. His horoscope is a portrait revealing his unalterable past and its future results. "

According to Vedic astrology (the astrology of ancient India), the reason astrology works is that the positions of the planets and stars at the moment of your birth reveal the map of your life and the results of your "karmas" from past lives.

The Time of Your Life: In ancient Vedic literature, the horoscope and the zodiac are often called "the Kala chakra" or "wheel of time."

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Vedic astrology uses multiple tools to predict one's nature and future events. Some of the tools and concepts it uses are listed as follows:

1. Meaning of each Sign, Nakshatra, Planet & House: For interpreting the results given by the planet according to house lordship in individual horoscope.

2. Your birth chart + divisional charts (e.g. D-9, D-10)

3. Vimshottari Mahadasha (used in Parashara system of predictions)

4. Chara Dasha (used in Jaimini system of predictions)

5. Nirayana Bhav Chalit Chart (also called NBC Chart; mainly used in KP system of predictions)

6. Shad-bala analysis of each planet (a quantitative analysis of planetary strength)

7. Ashtakvarga and Sarvashtakvarga tables (don't know about it much)

Ages ago great sages and rishis laid down on the basis of their observations, certain rules .

They observed the timings of events and the movements of stars and wrote these observations with an esoteric view of life linking this to human nature in very unique ways.

Astrology works on those principles and observations laid down by the great rishis and saints . The relation of planets qualities with those of our own are based on the science of observations and the rest on intuition .

The Vedas give a clear view of such things and various sutras comprehend this knowledge so all in all astrology works on the principle of simple observation and analysis and principles laid down in the sutras .

The earliest use of the term *jyotiṣa* is in the sense of a Vedanga, an auxiliary discipline of Vedic religion. The only work of this class to have survived is the *Vedanga Jyotisha*, which contains rules for tracking the motions of the sun and the moon in the context of a five-year intercalation cycle. The date of this work is uncertain, as its late style of language and composition, consistent with the last centuries BC, albeit pre-Mauryan, conflicts with some internal evidence of a much earlier date in the 2nd millennium BC.

The documented history of Jyotish in the subsequent newer sense of modern horoscopic astrology is associated with the interaction of Indian and Hellenistic cultures in the Indo-

Greek period. Greek became a lingua franca of the Indus valley region following the military conquests of Alexander the Great and the Bactrian Greeks. The oldest surviving treatises, such as the Yavanajataka or the Brihat-Samhita, date to the early centuries AD. The oldest astrological treatise in Sanskrit is the *Yavanajataka* ("Sayings of the Greeks"), a versification by Sphujidhvaja in 269/270 AD of a now lost translation of a Greek treatise by Yavanesvara during the 2nd century AD under the patronage of the Western Satrap Saka king Rudradaman I.

Indian astronomy and astrology developed together. The earliest treatise on jyotish, the Bhrigu Samhita, dates from the Vedic era. The sage Bhrigu is one of the Saptarshi, the seven sages who assisted in the creation of the universe. Written on pages of tree bark, the Samhita (Compilation) is said to contain five million horoscopes comprising all who have lived in the past or will live in the future. The first named authors writing

treatises on astronomy are from the 5th century AD, the date when the classical period of Indian astronomy can be said to begin. Besides the theories of Aryabhata in the *Aryabhatiya* and the lost *Arya-siddhānta*, there is the *Pancha-Siddhāntika* of Varahamihira.
Jyotisha or Jyotishya (from Sanskrit *jyotiṣa*, from *jyóti-* "light, heavenly body") is the traditional Hindu system of astrology, also known as Hindu astrology, Indian astrology and more recently Vedic astrology. The term *Hindu astrology* has been in use as the English equivalent of *Jyotiṣa* since the early 19th century, whereas *Vedic astrology* is a relatively recent term, entering common usage in the 1970s with self-help publications on Āyurveda or yoga.

The horoscopic astrology practiced in the Indian subcontinent came from Hellenistic influences, post-dating the Vedic period. and the *Vedanga Jyotishya*, one of the earliest texts about astronomy within the Vedas,[3][4][5] dates from the last centuries BCE.

Following a judgement of the Andhra Pradesh High Court in 2001 which favoured astrology, some Indian universities now offer advanced degrees in Hindu astrology, despite protest from the scientific community that astrology is a pseudoscience.

Indian astronomy

Jyotiṣa is one of the Vedāṅga, the six auxiliary disciplines used to support Vedic rituals. Early jyotiṣa is concerned with the preparation of a calendar to determine dates for sacrificial rituals, with nothing written regarding planets. There are mentions of eclipse-causing "demons" in the Atharvaveda and Chāndogya Upaniṣad, the latter mentioning Rāhu (a shadow entity believed responsible for eclipses and meteors).[12]:382 The term *graha*, which is now taken to mean planet, originally meant demon. The Ṛigveda also mentions an eclipse-causing demon, Svarbhānu, however the specific term *graha* was not applied to Svarbhānu until the later *Mahābhārata* and *Rāmāyaṇa*.

The foundation of Hindu astrology is the notion of bandhu of the Vedas (scriptures), which is the connection between the microcosm and the macrocosm. Practice relies primarily on the sidereal zodiac, which differs from the tropical zodiac used in Western (Hellenistic) astrology in that an *ayanāṁśa* adjustment is made for the gradual precession of the vernal equinox. Hindu astrology includes several nuanced sub-systems of interpretation and prediction with elements not found in Hellenistic astrology, such as its system of lunar mansions (*Nakṣatra*). It was only after the transmission of Hellenistic astrology that the order of planets in India was fixed in that of the seven-day week. Hellenistic astrology and astronomy also transmitted the twelve zodiacal signs beginning with Aries and the twelve astrological places

beginning with the ascendant. The first evidence of the introduction of Greek astrology to India is the *Yavanajātaka* which dates to the early centuries CE. The *Yavanajātaka* (lit. "Sayings of the Greeks") was translated from Greek to Sanskrit by Yavaneśvara during the 2nd century CE, and is considered the first Indian astrological treatise in the Sanskrit language. However the only version that survives is the verse version of Sphujidhvaja which dates to AD 270. The first Indian astronomical text to define the weekday was the *Āryabhaṭīya* of Āryabhaṭa (born AD 476).

According to Michio Yano, Indian astronomers must have been occupied with the task of Indianizing and Sanskritizing Greek astronomy during the 300 or so years between the first *Yavanajataka* and the *Āryabhaṭīya*. The astronomical texts of these 300 years are lost. The later *Pañcasiddhāntikā* of Varāhamihira summarizes the five known Indian astronomical schools of the sixth century. Indian astronomy preserved some of the older pre-Ptolemaic elements of Greek astronomy.

The main texts upon which classical Indian astrology is based are early medieval compilations, notably the *Bṛhat Parāśara Horāśāstra*, and *Sārāvalī* by *Kalyāṇavarma*. The *Horāshastra* is a composite work of 71 chapters, of which the first part (chapters 1–51) dates to the 7th to early 8th centuries and the second part (chapters 52–71) to the later 8th century. The *Sārāvalī* likewise dates to around 800 CE. English translations of these texts were published by N. N. Krishna Rau and V. B. Choudhari in 1963 and 1961, respectively.

Nomenclature of the last two centuries

Astrology remains an important facet of folk belief in the contemporary lives of many Hindus. In Hindu culture, newborns are traditionally named based on their jyotiṣa charts (Kundali), and astrological concepts are pervasive in the organization of the calendar and holidays, and in making major decisions such as those about marriage, opening a new business, or moving into a new home. Many Hindus believe that heavenly bodies, including the planets, have an influence throughout the life of a human being, and these planetary influences are the "fruit of karma". The Navagraha, planetary deities, are considered subordinate to Ishvara (the Hindu concept of a supreme being) in the administration of justice. Thus, it is believed that these planets can influence earthly life.

Status of astrology

See also: Astrology and science

Astrology retains a position among the sciences in modern India.[17]

India's University Grants Commission and Ministry of Human Resource Development decided to introduce "Jyotir Vigyan" (i.e. *jyotir vijñāna*) or "Vedic astrology" as a discipline of study in Indian universities, stating that "vedic astrology is not only one of the main subjects of our traditional and classical knowledge but this is the discipline, which lets us know the events happening in human life and in universe on time scale."[18] The decision was backed by a 2001 judgement of the Andhra Pradesh High Court, and some Indian universities offer advanced degrees in astrology. This was met with widespread protests from the scientific community in India and Indian scientists working abroad. A petition sent to the Supreme Court of India stated that the introduction of astrology to university curricula is "a giant leap backwards, undermining whatever scientific credibility the country has achieved so far".

In 2004, the Supreme Court dismissed the petition, concluding that the teaching of astrology did not qualify as the promotion of religion. In February 2011, the Bombay High Court referred to the 2004 Supreme Court ruling when it dismissed a case which had challenged astrology's status as a science. As of 2014, despite continuing complaints by scientists, astrology continues to be taught at various universities in India, and there is a movement in progress to establish a national Vedic University to teach astrology together with the study of tantra, mantra, and yoga.

There are sixteen *Varga* (Sanskrit: *varga*, 'part, division'), or divisional, charts used in Hindu astrology:

Rāśi – zodiacal signs

The Nirayana, or sidereal zodiac, is an imaginary belt of 360 degrees, which, like the Sāyana, or tropical zodiac, is divided into 12 equal parts. Each part (of 30 degrees) is called a sign or *rāśi* (Sanskrit: 'part'). Vedic (Jyotiṣa) and Western zodiacs differ in the method of measurement. While synchronically, the two systems are identical, Jyotiṣa primarily uses the sidereal zodiac (in which stars are considered to be the fixed background against which the motion of the planets is measured), whereas most Western astrology uses the tropical zodiac (the motion of the planets is measured against the position of the Sun on the spring equinox). After two millennia, as a result of the precession of the equinoxes, the origin of the ecliptic longitude has shifted by about 22 degrees. As a result, the placement of planets in the Jyotiṣa system is roughly aligned with the constellations, while tropical astrology is based on the solstices and equinoxes.

No.	Transliteration	Representation	English	Malayalam	Element	Quality	Ruling Astrological Body
1	*Meṣa*	ram	Aries	മേടം	Fire	Chara (movable)	Mars
2	*Vṛṣabha*	bull	Taurus	ഇടവം	Earth	Sthira (fixed)	Venus
3	*Mithuna*	twins	Gemini	മിഥുനം	Air	Dvisvabhava (dual)	Mercury
4	*Karka*	crab	Cancer	കർക്കടകം	Water	Chara (movable)	Moon
5	*Siṃha*	lion	Leo	ചിങ്ങം	Fire	Sthira (fixed)	Sun
6	*Kanyā*	virgin girl	Virgo	കന്നി	Earth	Dvisvabhava (dual)	Mercury
7	*Tulā*	balance	Libra	തുലാം	Air	Chara (movable)	Venus
8	*Vṛścika*	scorpion	Scorpio	വൃശ്ചികം	Water	Sthira (fixed)	Mars
9	*Dhanuṣa*	bow and arrow	Sagittarius	ധനു	Fire	Dvisvabhava (dual)	Jupiter
10	*Makara*	goat	Capricorn	മകരം	Earth	Chara (movable)	Saturn
11	*Kumbha*	water-bearer	Aquarius	കുംഭം	Air	Sthira (fixed)	Saturn
12	*Mīna*	fishes	Pisces	മീനം	Water	Dvisvabhava	Jupiter

						va (dual)	

Nakṣhatras – lunar mansions

Nakshatras

The *nakshatras* or lunar mansions are 27 equal divisions of the night sky used in Hindu astrology, each identified by its prominent star(s).

Historical (medieval) Hindu astrology enumerated either 27 or 28 nakṣatras. In modern astrology, a rigid system of 27 nakṣatras is generally used, each covering 13° 20′ of the ecliptic. The missing 28th nakshatra is *Abhijeeta*. Each nakṣatra is divided into equal quarters or *padas* of 3° 20′. Of greatest importance is the Abhiśeka Nakṣatra, which is held as king over the other nakṣatras. Worshipping and gaining favour over this nakṣatra is said to give power to remedy all the other nakṣatras, and is of concern in predictive astrology and mitigating Karma.

The 27 nakshatras are:

1. Ashvini
2. Bharni
3. Krittika
4. Rohini
5. Mrighashirsha
6. Ardra or Aarudhra
7. Punarvasu
8. Pushya
9. Aslesha
10. Magha
11. Purva Phalguni
12. Uttara Phalguni
13. Hasta
14. Chitra
15. Swati
16. Vishakha
17. Anuradha
18. Jyeshtha
19. Moola
20. Purvashada
21. Uttarashada
22. Shravana
23. Dhanishta

24. Shatabhishak
25. Purva Bhadra
26. Uttara Bhadra
27. Revati

Daśās – planetary periods

The word *dasha* 'planetary period') means 'state of being' and it is believed that the *daśā* largely governs the state of being of a person. The Daśā system shows which planets may be said to have become particularly active during the period of the Daśā. The ruling planet (the Daśānātha or 'lord of the Daśā') eclipses the mind of the person, compelling him or her to act per the nature of the planet.

There are several *dasha* systems, each with its own utility and area of application. There are Daśās of *grahas* (planets) as well as Daśās of the Rāśis (zodiac signs). The primary system used by astrologers is the Viṁśottarī Daśā system, which has been considered universally applicable in the *kaliyuga* to all horoscopes.

The first Mahā-Daśā is determined by the position of the natal Moon in a given Nakṣatra. The lord of the Nakṣatra governs the Daśā. Each Mahā-Dāśā is divided into sub-periods called *bhuktis*, or *antar-daśās*, which are proportional divisions of the maha-dasa. Further proportional sub-divisions can be made, but error margins based on accuracy of the birth time grow exponentially. The next sub-division is called *pratyantar-daśā*, which can in turn be divided into *sookshma-antardasa*, which can in turn be divided into *praana-antardaśā*, which can be sub-divided into *deha-antardaśā*. Such sub-divisions also exist in all other Daśā systems.

Grahas – planets

The Navagraha (nine 'planet') describe nine celestial bodies used in Hindu astrology.

The Navagraha are said to be forces that capture or eclipse the mind and the decision making of human beings, thus the term *graha*. When the *grahas* are active in their Daśās or periodicities they are said to be particularly empowered to direct the affairs of people and events.

Rahu and Ketu correspond to the points where the moon crosses the ecliptic plane (known as the ascending and descending nodes of the moon). Classically known in Indian and Western astrology as the "head and tail of the dragon", these planets are represented as a serpent-bodied demon beheaded by the Sudarshan Chakra of Vishnu after attempting to swallow the sun. They are primarily used to calculate the dates of eclipses. They are described as "shadow planets" because they

are not visible in the night sky. They have an orbital cycle of 18 years and are always 180 degrees from each other.

Gocharas – transits

A natal chart shows the position of the *grahas* at the moment of birth. Since that moment, the *grahas* have continued to move around the zodiac, interacting with the natal chart grahas. This period of interaction is called *gochara* or 'transit'.

The study of transits is based on the transit of the Moon (Chandra), which spans roughly two days, and also on the movement of Mercury (Budha) and Venus (Śukra) across the celestial sphere, which is relatively fast as viewed from Earth. The movement of the slower planets – Jupiter (Guru), Saturn (Śani) and Rāhu-Ketu — is always of considerable importance. Astrologers study the transit of the Daśā lord from various reference points in the horoscope.

The transit phase alway makes an impact on the lives of humans on earth which can be positive or negative however as per the astrologers the impact of transits can be nuetralised with remedies.

Yogas – planetary combinations

In Hindu astronomy, *yoga* (Sanskrit: *yoga*, 'union') is a combination of planets placed in a specific relationship to each other.

Rāja yogas are perceived as givers of fame, status and authority, and are typically formed by the association of the Lord of Keṅdras ('quadrants'), when reckoned from the Lagna ('Ascendant'), and the Lords of the Trikona ('trines', 120 degrees—first, fifth and ninth houses). The Rāja yogas are culminations of the blessings of Viṣṇu and Lakṣmī. Some planets, such as Mars for Leo Lagna, do not need another *graha* (or Navagraha, 'planet') to create *Rājayoga*, but are capable of giving *Rājayoga* by themselves due to their own lordship of the 4th Bhāva ('astrological house') and the 9th Bhāva from the Lagna, the two being a Keṅdra ('angular house'—first, fourth, seventh and tenth houses) and Trikona Bhāva respectively.

Dhana Yogas are formed by the association of wealth-giving planets such as the Dhaneśa or the 2nd Lord and the Lābheśa or the 11th Lord from the Lagna. Dhana Yogas are also formed due to the auspicious placement of the Dārāpada (from *dara*, 'spouse' and *pada*, 'foot'—one of the four divisions—3 degrees and 20 minutes—of a Nakshatra in the 7th house), when reckoned from the Ārūḍha Lagna (AL). The combination of the Lagneśa and the Bhāgyeśa also leads to wealth through the Lakṣmī Yoga.

Sanyāsa Yogas are formed due to the placement of four or more *grahas*, excluding the Sun, in a Keṅdra Bhāva from the Lagna.

There are some overarching yogas in Jyotiṣa such as Amāvasyā Doṣa, Kāla Sarpa Yoga-Kāla Amṛta Yoga and Graha Mālika Yoga that can take precedence over Yamaha yogar planetary placements in the horoscope.

Bhāvas – houses

The Hindu Jātaka or Janam Kundali or birth chart, is the Bhāva Chakra (Sanskrit: 'division' 'wheel'), the complete 360° circle of life, divided into houses, and represents a way of enacting the influences in the wheel. Each house has associated kāraka (Sanskrit: 'significator') planets that can alter the interpretation of a particular house. Each Bhāva spans an arc of 30° with twelve Bhāvas in any chart of the horoscope. These are a crucial part of any horoscopic study since the Bhāvas, understood as 'state of being', personalize the Rāśis/ Rashis to the native and each Rāśi/ Rashi apart from indicating its true nature reveals its impact on the person based on the Bhāva occupied. The best way to study the various facets of Jyotiṣa is to see their role in chart evaluation of actual persons and how these are construed.

Dṛṣṭis – aspects

Drishti (Sanskrit: *Dṛṣṭi*, 'sight') is an aspect to an entire house. *Grahas* cast only forward aspects, with the furthest aspect being considered the strongest. For example, Mars aspects the 4th, 7th, and 8th houses from its position, and its 8th house aspect is considered more powerful than its 7th aspect, which is in turn more powerful than its 4th aspect.

The principle of Dristi (aspect) was devised on the basis of the aspect of an army of planets as deity and demon in a war field. Thus the Sun, a deity king with only one full aspect, is more powerful than the demon king Saturn, which has three full aspects.

Aspects can be cast both by the planets (Graha Dṛṣṭi) and by the signs (Rāśi Dṛṣṭi). Planetary aspects are a function of desire, while sign aspects are a function of awareness and cognizance.

There are some higher aspects of Graha Dṛṣṭi (planetary aspects) that are not limited to the Viśeṣa Dṛṣṭi or the special aspects. Rāśi Dṛṣṭi works based on the following formulaic structure: all movable signs aspect fixed signs except the one adjacent, and all dual and mutable signs aspect each other without exception.

Astrology and science

Astrology has been rejected by the scientific community as having no explanatory power for describing the universe. Scientific testing of astrology has been conducted, and no evidence has been found to support any of the premises or purported effects outlined in astrological traditions. There is no mechanism proposed by astrologers through which the positions and motions of stars and planets could affect people and events on Earth.

Astrologers in Indian astrology make grand claims without taking adequate controls into consideration. Saturn was in Aries in 1909, 1939 and 1968, yet the astrologer Bangalore Venkata Raman claimed that "when Saturn was in Aries in 1939 England had to declare war against Germany", ignoring the two other dates. Astrologers regularly fail in attempts to predict election results in India, and fail to predict major events such as the assassination of Indira Gandhi. Predictions by the head of the Indian Astrologers Federation about war between India and Pakistan in 1982 also failed.

In 2000, when several planets happened to be close to one another, astrologers predicted that there would be catastrophes, volcanic eruptions and tidal waves. This caused an entire sea-side village in the Indian state of Gujarat to panic and abandon their houses. The predicted events did not occur and the vacant houses were burgled.

A panchānga is a Hindu calendar and almanac, which follows traditional units of Hindu timekeeping, and presents important dates and their calculations in a tabulated form. It is sometimes spelled *Pancanga*, *Panchanga*, *Panchaanga*, or *Panchānga*, and is pronounced *Panchānga*. Pachangas are used in Jyotisha (*Jyotiṣa*).

In Eastern India, including Assam, Bengal, Odisha the Panchangam is referred to as Panjika.

Overview: Panchāngams are published in India by many authors, societies, academies, and universities. Different publications differ only minutely, at least for a casual or not yet trained reader. They forecast celestial phenomena such as solar eclipses, forecasting weather (rain, dry spells) as well as more mundane occurrences.

The study of Panchāngams involves understanding *Rasi phala* (also pronounced 'Rashi phala'), the impact of the signs of the zodiac on the individual. Astrologers consult the Panchāngam to set auspicious dates for weddings, corporate mergers, and other activities as per their religion.

The casting of a Panchāngam involves elaborate mathematical work involving high level of spherical geometry and sound understanding of astronomical phenomena, such as sidereal movements of heavenly bodies. However, in practice the tabulation is

done on the basis of short-cut formulations as propounded by ancient Vedic sages and scholars.

William James, American Author

"From the Vedas, we learn a practical art of surgery, medicine, music, house building under which mechanized art is included. They are encyclopedia of every aspect of life, culture, religion, science, ethics, law, cosmology and meteorology.

Emmelin Plunret in 'Calendars and Constellations ' "They were very advanced Hindu astronomers in 500AD. Vedas contain an account of the dimension of Earth, Sun, Moon, Planets, and Galaxies."

Historian Will Durant noted "It is true that even across the Himalayan barrier India has sent to the west, such gifts as grammar and logic, philosophy and fables, hypnotism and chess, and above all numerals and the decimal system."

A typical Panchāngam may state tabulations of positions of Sun, Moon, and other planets for every day of the year on a fixed place (longitude, latitude) and time of day (in 24-hour format IST). The users calculate the remaining data using their relative difference from this fixed place and time.

There are several panchāngas that contain information for more than one year. There is one, Vishvavijaya Panchāngam, that covers 100 years.

The theories propounded in the two scriptures, Surya Siddhanta and Grahalaghava formed the basis for the myriad calendars or Panchāngas in the past in different regions of India.

The Grahalaghava was compiled about 600 years ago and Surya Siddhanta was available long before that. These had become outdated and did not tally with actual astronomical events and did not tally with each other. Hence, a committee was appointed by the Government of India with experts in the field drawn from various parts of the country who were involved with preparation of Panchāngam in local languages to draw up a reliable Panchāngam in which the mathematical calculations provides the positions of grahas (the planets) and nakshatras (constellations) in the sky as they are observed.

Thus, the Government of India has prepared the National Panchānga or the Indian national calendar in 1957 (was proposed by Saha and Lahiri in 1952), which is used in predictive astrology. The Lahiris Ephemeris published annually is the most widely used

English almanac in Vedic astrology, many Panchāngas are published in local languages, which are mostly based on the National Panchānga.

Etymology: Accuracy of attributes depending upon the Moon's motions were considered most crucial for the reliability of a panchāngam, because the Moon is the fastest among all heavenly entities shown in traditional panchāngas. Tithi, Nakshatra, Rāśi, Yoga, and Karana depend upon Moon's motions, which are five in number. *Panchānga* is a Sanskrit word, literally meaning "having five limbs". If these five limbs, for example, the five attributes depending upon Moon, are accurate, an almanac is held to be reliable, because other elements are not so difficult to compute due to their slow rates of change.

There are three popular meanings of panchāngam:

1. In Vedic astrology, meaning "five attributes" of the day. They are:
    - Tithi - Ending Moment (EM) of elongation of the Moon, the lunar day, the angular relationship between Sun and Moon (Apparent Moon *minus* Apparent Sun). One Tithi equals 12 degree difference between Moon and Sun.
    - Nakshatra - EM of astarism of the day, that is, the stellar mansion in which Moon is located for an observer at the center of the Earth. One Nakshatra equals 13 degrees:20 minutes. There are 27 Nakshatra in 360 degrees.
    - Yoga - EM of the angular relationship between Sun and Moon(Apparent Moon *plus* Apparent Sun). One Yoga equals 13 degrees:20 minutes. There are 27 Yogas in 360 degrees.
    - Karana - EM of half of a Tithi. One *Karaṇa* equals 6 degree difference between Moon and Sun.
    - *Var* weekday the seven weekdays.

    Monier-Williams gives "solar day" instead of Rāśi as the fifth limb. Some people enumerate *Vār* (days of the week) instead. Vār or solar days do not involve intricate computations, unlike EM of Rāśi; however, in the Hindu system the five elements only constitute the five limbs of the Panchāngam.

2. An almanac that contains the astronomical / astrological daily details also came to be called a panchāngam because of the importance of five attributes.
3. Panchānga-pūjan, which is a part of Ganesh-Ambika-pūjan.

In Vedic astrology, the basic tenet of astrology was integrated with celestial events and thus was born various branches of Vedic astrology and the Panchānga. In simple terms, " Panchānga" means the Day, Nakshatra (Star), Thithi, Yoga and Karana every day. It is a mirror of the sky. The document used as Panchāngam has evolved over the last 5000 years. The theories propounded in the two scriptures, Surya Siddhanta and Grahalaghava formed the basis for the plethora of calendars or Panchāngas in the past in different regions of the country - a culturally complex system.

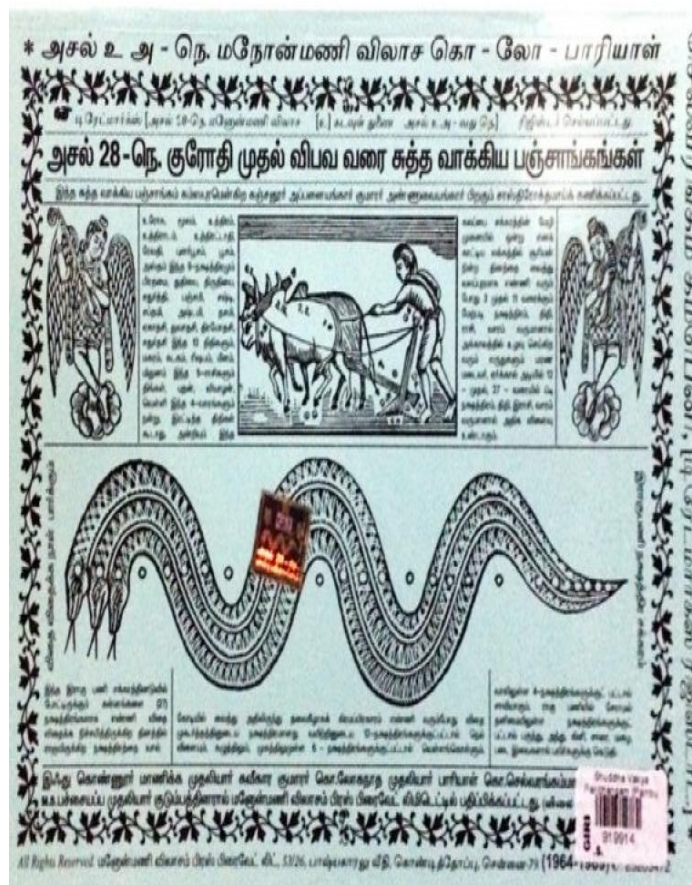
The five Angas or parts of Panchāngam are elaborated in the following paragraphs but before that the composition of the Samvatsara OR Years (60 Years cycle), Varsha or Year and Masa or month are first explained, as these important calendar events are part of every Panchānga. All the components of Panchangam are relevant in Predictive Astrology, Prasna Shastra (electional astrology), etc.

All followers and practitioners of Vedic astrology must know how to read a Panchāngam and in this context it is necessary to know the terminology used in the Panchāngam for different time slots of the day. Panchāngas are also published in English as Ephemeris - The Lahiris Ephemeris is most widely used, which gives all the details as contained in a traditional Panchāngam published in Sanskrit or Hindi and all the regional languages of the country.

There are several forms of reckoning the *varsha* or year based on solar entry (solar ingress), lunar entry, Jupiter entry in a sign or the Julian calendar of starting the year from the first of January, but the most widely accepted practice in India is the Samvatsara, a 60 years cycle based on solar entry. Each zodiacal sign is represented by fixe years starting from Pramadi and the sixty years are equally distributed in successive order among the twelve signs (Rasis) starting from Mesha (Aries) and ending in Meena (Pisces).

Varsha or the year, used in astrological context refers to the solar calendar of year and months, which starts with Sun entering Aries (Mesha Rasi) and completing a full circle of the zodiac in a period of twelve months.

There are two kinds of lunar months followed in India - the new moon ending called the Amanta or Sukladi system and the full moon ending (covering one full moon to the next) called the Purnimanta system. But it is the lunar months full moon reckoned), which are reckoned in predictive astrology, and each represents the name of the star on full moon day of the solar months. The twelve lunar months starting from Chaitra along with the names of the solar months are given below.

No.	Lunar month	Solar month
1	Chitta	Chaitra
2	Visaka	Vyshaka
3	Jyeshta	Jyeshta
4	Poorvashada	Ashada
5	Sravana	Shravana
6	Poorvabhadra	Bhadrapadha
7	Aswini	Aswija
8	Kartika	Kartika
9	Mrigashira	Margashira

10	Pushyami	Pushya
11	Makha	Magha
12	Uttaraphalguni	Phalguna

In Vedic astrology, the basic tenets of astrology were integrated with celestial events with *vara* or weekday and thus was born the Muhurtha astrology or electional astrology.

Thithi or Lunar day is an important concept in Hindu astrology. It means lunation. There are thirty *thithis* in a Lunar month distributed in the 360 degrees of the Zodiac and each thithi is completed when the longitude of the Moon gains exactly twelve degrees or its multiple on that of the Sun. By name there are only 15 thithis repeating in the two halves of the month – Shukla 1 to Shukla 15 (known as Poornima or Full Moon) and Krishna 1 to 15 (known as Amavasya or New Moon). In astrological parlance Thithi has great significance in the fact that each Thithi from 1 to 14 in both Pakshas has what are called *daghda rasis* or burnt rasis – two rasis for each thithi except Chaturdasiwhich has four daghda rasis. But new moon and full moon have no dagdha rasis. The thithis are divided into five groups as under.

1. Nanda (Ananda or Joyous) thithi - Prathipada (1st), Shasti (6th) and Ekadashi (11th);
2. Bhadra (Arogya or Mangala or Healthy) thithis on – Dwitiya (2nd), Saptami (7th) and Dwadashi (12th);
3. Jaya (Victory) Thithi –Tuesday- Tritiya (3rd), Ashtami (8th) and Trayodashi (13th);
4. Rikktha (Loss or Nashta) thitihis – Saturday - Chathurthi (4th) Navami (9th) and Chaturdasi (14th);
5. Poorna (Sampoorna - Full Moon or New Moon) thithis –Thursday Panchami (5th), Dashami (10th) and Amavasya (New Moon) or Poornima.

A unique Vedic system is followed in Muhurtha astrology, Horary astrology and predictive astrology, which envisages grouping of Nakshtaras (stars) into nine sub-groups. Each sub-group covers three stars and has a specific name of 'Tara' proceeded by a word defining benefic or malefic nature. These are found to be extremely useful in Vedic astrology which is widely practiced in India.

The nine *taras* (star groups) by their individual names are listed below.

1. Janma (Birth/Ascendant/Lagna) Tara – The Janma (Birth Star/Ascendant Star also known as Lagna Nakshatra) Nakshatra, the 10th from Janma nakshatra also known as Karna nakshatra and the 19th from Janma nakshatra known as Adhana nakshatra constitute this tara.
2. Sampat Tara – The 2nd the 11th and the 20th Nakshatras counted from Janma nakshatra constitute this tara.
3. Vipat Tara – The 3rd, the 12th and the 21st stars counted from Janma nakshatra constitute this tara.
4. Kshema Tara – The 4th, the 13th and the 22nd Nakshatras counted from the janama nakshatra constitute this tara.
5. Pratyak Tara – The 5t, the 14th, and the 23rd nakshatras from Janma nakshatra constitute this tara.
6. Sadhaka Tara – The 6th, the 15th, and the 24th nakshatras from Janma nakshatra constitute this tara.
7. Nidhana Tara – The 7th, the 16th, and the 25th nakshatras from the Janma nakshatra constitute this tara.
8. Mitra Tara – The 8th, the 17th and the 26th nakshatras from Janma nakshatra constitute this tara.
9. Ati or Parama Mitra Tara – The 9th, the 18th and the 27th nakshatras from Janma nakshatra constitute this tara.

The basic purpose of Hindu Panchāngam is to check various Hindu festivals and auspicious time (election- Muhurta). In the Hindu system of election, various element of Panchāngam constitute auspicious and inauspicious moments (Yogas) by combination of weekday-Tithi, weekday-constellation, weekdays-Tithis-constellations. In addition, individual weekdays, Tithis, constellations, Yoga and Karanas have been prescribed for specific activities which fructify during their currency.

For selecting an auspicious moment Panchāngam Shuddhi (purified-time) is fundamental. In addition favourable transits, purified ascendant, absence of malefic yogas, favourable Dasha (Hindu progression), name of doer, propitiations, chanting of Mantras, place of activity, social customs, omens, mode of breathing are also examined.

Jyotisha (Sanskrit: Jyotiṣa), now the term for traditional Hindu astrology, historically was the branch of knowledge dedicated to the observation of astronomical bodies in order to keep the right time for the Vedic sacrifices. It is one of the six Vedangas, or ancillary science connected with the Vedas that developed . This field of study was concerned with fixing the days and hours of Vedic rituals.

Hindu astrology from the 3rd century BCE was greatly influenced by Greek tradition, But the concept of *Vedanga* predates Greek contact, and there have also been later

independent developments. Hindu astrology as it stands today is inherently a study of karma[7], which gives it a very different foundation compared to Greek astrology. In addition to this, the predictive techniques such as Dashas (planetary and sign-based time periods), Vargas (harmonic divisions of the horoscope) are not that evolved in Greek astrology.

Jyotisha, states Monier-Williams, is rooted in the word *Jyotish* which means light, such as that of sun or moon or heavenly body. The term *Jyotisha* includes the study of astronomy, astrology and the science of timekeeping using the movements of astronomical bodies. It aimed to keep time, maintain calendar, and predict auspicious times for Vedic rituals.

History: According to David Pingree, the field of timekeeping in Jyotisha may have been "derived from Mesopotamia during the Achaemenid period", but Yukio Ohashi considers this proposal as "definitely wrong".[Ohashi states that this Vedanga field developed from actual astronomical studies in ancient India.[4] Other scholars dismiss various arguments of Pingree and K. S. Shukla points out a controversy by showing Pingree's incorrect amendations to the manuscript of the Yavanajātaka, which Pingree believed to be highly corrupted.[11]

The texts of Vedic Jyotisha sciences were translated into the Chinese language in the 2nd and 3rd centuries CE, and the Rigvedic passages on astronomy are found in the works of Zhu Jiangyan and Zhi Qian.

Timekeeping as well as the nature of solar and lunar movements are mentioned in Vedic texts. For example, Kaushitaki Brahmana chapter 19.3 mentions the shift in the relative location of the sun towards north for 6 months, and south for 6 months.

TEXTS:

Time keeping

[The current year] minus one,
multiplied by twelve,
multiplied by two,
added to the elapsed [half months of current year],
increased by two for every sixty [in the sun],
is the quantity of half-months (syzygies).

— Rigveda Jyotisha-vedanga 4
Translator: Kim Plofker

The ancient extant text on Jyotisha is the *Vedanga-Jyotisha*, which exists in two editions, one linked to Rigveda and other to Yajurveda. The Rigveda version consists of 36 verses, while the Yajurveda recension has 43 verses of which 29 verses are borrowed from the Rigveda. The Rigveda version is variously attributed to sage Lagadha, and sometimes to sage Shuci. The Yajurveda version credits no particular sage, has survived into the modern era with a commentary of Somakara, and is the more studied version.

The Jyotisha text *Brahma-siddhanta*, probably composed in the 5th century CE, discusses how to use the movement of planets, sun and moon to keep time and calendar. This text also lists trigonometry and mathematical formulae to support its theory of orbits, predict planetary positions and calculate relative mean positions of celestial nodes and apsides.[19] The text is notable for presenting very large integers, such as 4.32 billion years as the lifetime of the current universe.

The ancient Hindu texts on Jyotisha only discuss time keeping, and never mention astrology or prophecy. These ancient texts predominantly cover astronomy, but at a rudimentary level Technical horoscopes and astrology ideas in India came from Greece and developed in the early centuries of the 1st millennium CE. Later medieval era texts such as the *Yavana-jataka* and the *Siddhanta* texts are more astrology-related.

Debate: The field of Jyotisha deals with ascertaining time, particularly forecasting auspicious day and time for Vedic rituals. The field of Vedanga structured time into *Yuga* which was a 5-year interval, divided into multiple lunisolar intervals such as 60 solar months, 61 savana months, 62 synodic months and 67 sidereal months. A Vedic Yuga had 1,860 *tithis* (dates), and it defined a *savana*-day (civil day) from one sunrise to another.

The Rigvedic version of Jyotisha may be a later insertion into the Veda, states David Pingree, possibly between 513 and 326 BCE, when Indus valley was occupied by the Achaemenid from Mesopotamia.[24] The mathematics and devices for time keeping mentioned in these ancient Sanskrit texts, proposes Pingree, such as the water clock may also have arrived in India from Mesopotamia. However, Yukio Ohashi considers this proposal as incorrect,[4] suggesting instead that the Vedic timekeeping efforts, for forecasting appropriate time for rituals, must have begun much earlier and the influence may have flowed from India to Mesopotamia.[13] Ohashi states that it is incorrect to assume that the number of civil days in a year equal 365 in both Hindu and Egyptian–Persian year.[25] Further, adds Ohashi, the Mesopotamian formula is different

from the Indian formula for calculating time, each can only work for their respective latitude, and either would make major errors in predicting time and calendar in the other region. According to Asko Parpola, the Jyotisha and luni-solar calendar discoveries in ancient India, and similar discoveries in China in "great likelihood result from convergent parallel development", and not from diffusion from Mesopotamia.

Kim Plofker states that while a flow of timekeeping ideas from either side is plausible, each may have instead developed independently, because the loan-words typically seen when ideas migrate are missing on both sides as far as words for various time intervals and techniquesFurther, adds Plofker, and other scholars, that the discussion of time keeping concepts are found in the Sanskrit verses of the *Shatapatha Brahmana*, a 2nd millennium BCE text. Water clock and sun dials are mentioned in many ancient Hindu texts such as the Arthashastra. Some integration of Mesopotamian and Indian Jyotisha-based systems may have occurred in a roundabout way, states Plofker, after the arrival of Greek astrology ideas in India.

The Jyotisha texts present mathematical formulae to predict the length of day time, sun rise and moon cycles. For example,

> The length of daytime = *muhurtas*
>
> where n is the number of days after or before the winter solstice, and one *muhurta* equals $\frac{1}{30}$ of a day (48 minutes).

> Water clock
> A *prastha* of water [is] the increase in day, [and] decrease in night in the [sun's] northern motion; vice versa in the southern. [There is] a six-muhurta [difference] in a half year.
>
> — Yajurveda Jyotisha-vedanga 8, Translator: Kim Plofker.

Vedic Horoscope

Daily | Weekly | Monthly | Yearly | Love | Chinese

For all the people who believe in regular astrology, Vedic astrology should not come as a surprise. This is because it takes inspiration from the same set of rules that regular astrology does. Vedic horoscope, like its western counterpart, has its followers believe that everything in this universe is dependent on the heavenly bodies and their movements. Starting ages ago in the land of India, this is the East's answer to the west regarding spiritual knowledge.

In simpler words, this Indian zodiac locates the position of each person's ruling planet in the skies and then uses it to form reasons behind all the actions and happenings in your life.

Vedic Horoscope – Vedic Astrology

It has been quite a long time now, one that astrologers cannot calculate, since when the Vedic horoscope has been in effect in India. In fact, in surrounding regions and the Indian subcontinent itself, Vedic horoscope predictions remain the primary source of astrology knowledge and take precedence over the regular astrology that the world is accustomed to.

Among others, one of the first differences that occur here is that the horoscope in Hindi has its names for the star signs. Before we go on and let you know about them, let us tell you that Indian astrology, Vedic astrology, as well as Hindu horoscope are all

the same thing describing the same objective. As you may have expected, this calls for the star sign divisions to be in the Hindi language too. This is allotting them attributes in nature, which are otherwise the personality traits directly translated in regular astrology.

Indian Vedic Astrology: The Attributes in Nature

Like we mentioned before, there are certain attributes in nature that are set up in astrology in Hindi, and which can then be subsequently used to know more about the life of a person. Each of these is allotted to a star sign. There are three basic attributes in nature in Indian horoscope, which are

1. Rajas: Passion and Activity
2. Tamas: Immobility and Inertia
3. Sattva: Harmony and Goodness

As you may have noticed, this comes off as a blueprint for a personality that a person is expected to have, based on their date of birth and the corresponding positions of planets. Have no doubt, as well as your personality, Vedic predictions can cough up information regarding any sphere of your life. All it needs is the position of planets in your birth chart. Just like movies show ancient knowledge to be unexplainable yet very intricately built and accurate to the core, Vedic horoscope too comes up with answers in the most unimaginable of ways. All it needs is the place and time of your birth.

Vedic Signs and the four Basic Motivations

We discussed the attributes in nature earlier, let us now give insight into the four basic motivations that lead each of these attributes. This is something of an aim of the human personality and helps Vedic star sign readers know more about the personality of the subject. These are:

1. Dharma: Getting through your day with meaningful work, that has far-reaching effects
2. Artha: The quest to always possess more than the others, collecting material benefits and objects
3. Kama: The ultimate desire, longing for sexual contact, and pleasure. You might recall it from the famous Indian term *Kama Sutra.*
4. Moksha: This talks of karma at a deeper level, that how it is an ever continuous cycle and will come back to you if you take part in it

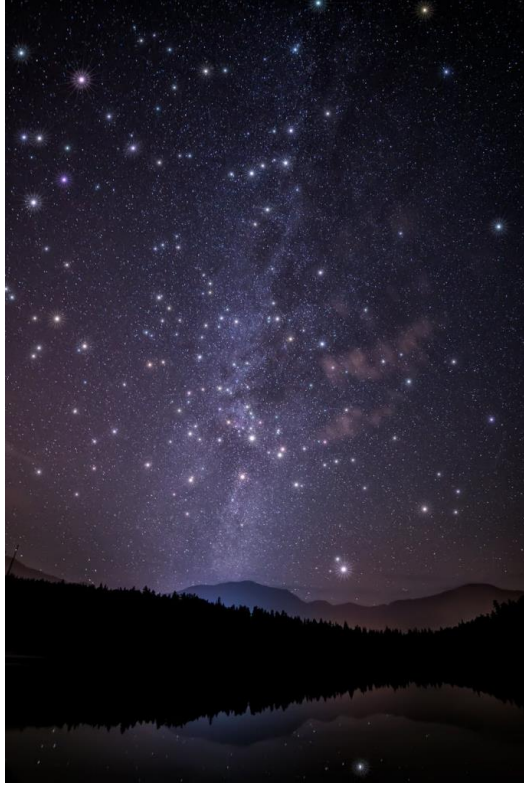
Vedic Horoscope and its Astrology Report

If you are interested in knowing what your life holds ahead of you through the knowledge that is ancient and reliable, you can get free astrology reports all over the internet, that stem from the Vedic astrology knowledge. It talks of your career, love life, bonding with family, health, and wealth. All of these are important factors if one wants to lead a life with control over all the factors that become the driving force behind it.

Vedic horoscope is also known as a *Kundalli and* remains one of the very important traditions in Indian culture before two couples marrying. This is the Indian version of checking whether two people are compatible with each other or not, by comparing their birth charts. Seasoned Vedic astrologers can give you sincere advice in case your *Kundalli* does not match with someone you may want to marry. This often involves sacrifices on the personal level, which are administered to ensure that the planets put in their approval.

More about Vedic Horoscope

Vedic astrology is the duster that reveals everything from under a dust-covered cupboard. You may think of this cupboard as holding all the important documents regarding the future of your life. Although Vedic horoscope is generally not considered or consulted in one's daily life, it should be seen before any crucial decisions come by that are believed to have long-lasting impacts on one's life. For instance, starting a new joint venture business could be something of a big step forward in life, and asking for guidance from the Vedic astrology could mean a lot of guidance that you otherwise may have ignored. On top of that, it could tell you way in advance whether your plans are doomed to failure or a plant of success.
With that kind of knowledge in advance, one can always alter his or her decisions to the right path, so that the maximum potential can be reaped out of certain things you plan to do in life. Rest assured, the Vedic horoscope is authentic, and it is accurate, all that remains is for you to try it in your life to your advantage.

Jyotish by Anna Kochkina

We are born at a given moment, in a given place and, like vintage years of wine, we have the qualities of the year and of the season of which we are born. Astrology does not lay claim to anything more.

~Carl Gustav Jung

ASTRO – L- OGY

ASTRO- N - OMY

saptārccir vahnyagāre vidhisatatahuto yena mantraiḥ prayuktair
mmedhyenābhūtapūrvveṇa vividhahaviṣāpi prahṛṣyatyīva
pūrvvatrāpūrvvam āśuprahitahitahavir mandapālasya mantrāt
*kṛtsnaṃ kṛṣṇārjunābhyāṃ priyam adhikam asau khāndave no cakhāda*35

"The [Lord of] Seven Fires [Agni], constantly invoked by rituals in the house of fire is pleased by mantra recitations by [Jayavarman VII], whose manifold offerings are pure and unprecedented. This is similar to Mandapāla's mantras, because of which [Agni] suddenly presented (*āśuprahita*) with an

unprecedented offering by Krsna and Arjuna,
did not thus consume everything good and
excellent in Khāndava.
Jayavarman V (968–1001)'s tenth century
inscription at Vat Sithor in Kompong Cham

Stars, Kings And Nations

Astrology evolved from a mundane system that predicted environmental conditions to a sophisticated tool that can be used to analyse personality, traits and the past/present lives of people. Certainly, royals and nobility have used these systems to ensure security and stability in their personal lives and their endeavour.

Our ancestors began noticing the stars above millions of years ago. After that, they gradually began to believe that these distant fires could influence life and destiny on earth. The stars and planets, they subsequently concluded, could chart the fortunes of kings and commoners. Likewise, the stars could also decide the fate of nations, cultures, civilisations, languages and societies, for instance. As a result, this belief culminated in the creation of the art and science of astrology.

Historical Roots

The first known and documented system of astrology appears to have been the Babylonian system. It can be traced back to the 2nd millennium BC. For instance, the art of divination is frequently referred to in ancient Babylonian texts. Certainly, by the 16th century BC, astrological predictions based on omens were compiled in a series of works. However, the focus was on the prediction of weather, crop-sowing, harvesting, and some political affairs, in almanac form. For instance, people used them to remember about seasonal tasks. Subsequently, they gradually began to include the fate of cities and nations.Egyptian, Persian and Mesopotamian systems contributed to the development of the zodiac. Therefore, they also studied the influences of the sun and how the movement of the planets and stars affected life on earth. For instance, the Egyptian astronomer/astrologer Ptolemy's work that was a seminal one in this area.

Development In India

In India a contrasting system of Vedic astrology began to develop. The earliest evidences found in 2nd millennium BC texts show a close relationship between astronomy and astrology. Although astrology initially concerned itself with the fate of kings, kingdoms and the elite, it moved gradually into the sphere of the common man.

Its status was on par with systems of traditional medicine like Ayurveda. As a result, the astrologer often enjoyed a high status in royal households and courts.

Other Systems Around The World

Chinese and Far Eastern systems developed a little later. They are based on a 60-year cycle combining five elements and twelve zodiac animal symbols. Omens and signs played a great role in this system. "*When some new dynasty is about to emerge, heaven shows auspicious signs for people to be warned*" was the opinion of a famous Chinese astrologer. Pre-Columbian and Mayan civilisations had their own astrological systems.

Kings and Queens and The Stars

People considered astrology to be so powerful that only the royal astrologer was allowed to cast the horoscope of a newborn Royal. They considered the horoscope to be a secret dossier that gave information about personality, vulnerabilities, favorable

and unfavorable periods etc. As a result, many Royals had two or three birth-dates to confuse their enemies.

Astrology In Indian Mythology

In India, the Ramayana and Mahabharata epics are full of astrological references. For instance, the births of Shri Rama and various other personages have been charted astrologically. Similarly in the Mahabharata, omens and portents, the baneful influences of planets and stars have all been mentioned.
The Mughals were firm believers in astrology. Because of this, Humanyun placed his throne on a planetary diagram depicting the sun and the planets. Abul Fazl cast Akbar's horoscope.
Mughal Emperor Babur and his son Humayun

During the period of the Chola dynasty of South India, people practised a branch called the Naadi astrology.

Modern Astrological Predictions

In the same vein, modern wars and conflicts like the Iraq War, the WTC Towers attack, Vietnam war, Pearl Harbor attack, the Japanese kamikaze fighters, the installation of the Statue of Liberty etc have all been traced to astrological configurations.[1]
Not only in Europe but also in India, kings and emperors used astrology as a 'scientific proof' for their claims to power. As it still was regarded as a science, it could provide useful justification for a king's great destiny, even though horoscopes are so complex that almost every fact can be 'found' in them by a clever combination of their data. Though doubts about astrology existed, the Mughal emperors used astrology extensively. Two of them, Akbar (1556-1605) and his grandson Shāh Jahān (1628-1658), included horoscopes in the introductions of their official chronicles. Both wanted to prove that they were the renovator of Islam in the second Islamic millennium. Akbar had this done in defiance of religion, Shāh Jahān in compliance, but both with a definitive effort to twist the information from the heavens in a way that suited them. Both used horoscopes to explain the tenets of their reign as a requirement of the age. In the case of Shāh Jahān, we even find personal sentiments and changes over time, comparing an earlier and a slightly later horoscope.[2]
Rooted in the Vedas, India's ancient system of knowledge, Vedic astrology is based on the belief that the stars and planets have a powerful influence on our lives. According to Hindu teachings, life is meant for spiritual growth. These ancient texts predominantly cover astronomy, but at a rudimentary level.Technical horoscopes and astrology ideas in India came from Greece and developed in the early centuries of the 1st millennium CE. Later medieval era texts such as the Yavana-jataka and the Siddhanta texts are more astrology-related.

1.https://jothishi.com/how-the-stars-have-charted-the-history-of-kings-and-nations/

2.Popp, S. (2016). Mughal Horoscopes as Propaganda, *Journal of Persianate Studies*, *9*(1), 45-59. doi: https://doi.org/10.1163/18747167-12341293

Jyotisha or Jyotishya (from Sanskrit *jyotiṣa*, from *jyóti-* "light, heavenly body") is the traditional Hindu system of astrology, also known as Hindu astrology, Indian astrology and more recently Vedic astrology. The term *Hindu astrology* has been in use as the English equivalent of *Jyotiṣa* since the early 19th century, whereas *Vedic astrology* is a relatively recent term, entering common usage in the 1970s with self-help publications on Āyurveda or yoga.
The *Vedanga Jyotisha* is one of the earliest texts about astronomy within the Vedas. Some scholars believe that the horoscopic astrology practiced in the Indian subcontinent came from Hellenistic influences, however, this is a point of intense debate and other scholars believe that Jyotisha developed independently although it may have interacted with Greek astrology.
Following a judgement of the Andhra Pradesh High Court in 2001 which favoured astrology, some Indian universities now offer advanced degrees in Hindu astrology. The scientific consensus is that astrology is a pseudoscience.
Brahmagupta, (born 598—died c. 665, possibly Bhillamala [modern Bhinmal], Rajasthan, India), one of the most accomplished of the ancient Indian astronomers. He also had a profound and direct influence on Islamic and Byzantine astronomy. He is the father of Indian astrology. The foundation of Hindu astrology is the notion of bandhu of the Vedas (scriptures), which is the connection between the microcosm and the macrocosm. Practice relies primarily on the sidereal zodiac, which differs from the tropical zodiac used in Western (Hellenistic) astrology in that an *ayanāṁśa* adjustment is made for the gradual precession of the vernal equinox. Hindu astrology includes several nuanced sub-systems of interpretation and prediction with elements not found in Hellenistic astrology, such as its system of lunar mansions (*Nakṣatra*). It was only after the transmission of Hellenistic astrology that the order of planets in India was fixed in that of the seven-day week.
Hellenistic astrology and astronomy also transmitted the twelve zodiacal signs beginning with Aries and the twelve astrological places beginning with the ascendant. The first evidence of the introduction of Greek astrology to India is the *Yavanajātaka* which dates to the early centuries CE. The *Yavanajātaka* (lit. "Sayings of the Greeks") was translated from Greek to Sanskrit by Yavaneśvara during the 2nd century CE, and is considered the first Indian astrological treatise in the Sanskrit language. However the only version that survives is the verse version of Sphujidhvaja which dates to AD 270. The first Indian astronomical text to define the weekday was the *Āryabhaṭīya* of Āryabhaṭa (born AD 476).
According to Michio Yano, Indian astronomers must have been occupied with the task of Indianizing and Sanskritizing Greek astronomy during the 300 or so years between the first *Yavanajataka* and the *Āryabhaṭīya*. The astronomical texts of these 300 years

are lostThe later *Pañcasiddhāntikā* of Varāhamihira summarizes the five known Indian astronomical schools of the sixth century. Indian astronomy preserved some of the older pre-Ptolemaic elements of Greek astronomy.
The main texts upon which classical Indian astrology is based are early medieval compilations, notably the *Bṛhat Parāśara Horāśāstra*, and *Sārāvalī* by *Kalyāṇavarma*. The *Horāshastra* is a composite work of 71 chapters, of which the first part (chapters 1–51) dates to the 7th to early 8th centuries and the second part (chapters 52–71) to the later 8th century. The *Sārāvalī* likewise dates to around 800 CE. English translations of these texts were published by N. N. Krishna Rau and V. B. Choudhari in 1963 and 1961, respectively.
Hindu Funan: Meanwhile a great change had taken place in the Kingdom of Funan. Kaundilya [1] a Brahmin from India heard an inner voice to go to FUNAN and reached P'an P'an south of Funan The people hearing of him came and made him king. He changed all the rukes there and made it as of Hinduism as practiced from India.[2]

The golden age of Khemer architecture began with Jayavarman II. In his long reign of 67 years he built 3 capitals. Probably(and I think definitely so) he got inspiration from his Javanese ancestors who had built the magnificent Prambanan temples.

1. ndrapura the Capital already exited when he came, it was followed by building of
2. Hariharalaya. The next capital was amarendrapura 100 miles to North – West of Angkor Thom.Shiva and Buddha were combined in the architecture of bantey Chamar which he built.The 3 rd and last work of jayavarman II was.
3. Mahendraparavata or Phnom Kueon.[2]

Hindu traditions dominated Angkor civilization up to the 13th century even if some sovereigns of this period had Buddhist leanings, or were even devout Buddhists. At the time of the monumental construction there was the problem of finding a suitable site vast enough to enable the construction of an edifice worthy of his greatness and living up to his aspirations. Whatever the layout of the city of Angkor was at this time, including the area of ancient Yasodharapura and of the future Angkor Thom, the constructions of the 10th and 11th century occupied a considerable part of the available land.

Some of the earliest astrological works uncovered include Jataka Parijata and Sarvartha Chintamani, both remnants of young Hindu astrology. Astrology that ascended from Indian roots is still widely-received, respected, and referred to today in Hindu culture. The earliest and most ancient scriptures are still able to produce accurate predictions and subsequently, have managed to evolve with the modern age.

Today's Western astrology is a diverse combination of the eerie science's origins; elements from Indian, Chinese, Mayan, and Greek astrology have come together to form the contemporary wheel that sections of the Gregorian calendar into the zodiac signs most mentioned currently.

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1. A person of that name is mentioned in the Book of Liang in a story that appears somewhat after the story of Hùntián.According to this source, Qiáochénrú was one of the successors of the king Tiānzhú Zhāntán (天竺旃檀, "Candana from India"), a ruler of Funan who in the year 357 CE sent tamed elephants as tribute to Emperor Mu of Jin (r. 344–361; personal name: Sīmǎ Dān
2. Indian cultural influence in Cambodia / by Bijan Raji Chatterji. [Calcutta] : University of Calcutta, 1964.
https://archive.org/details/IndianCulturalInfluenceInCambodia/page/n33/mode/1up

As a result, Suryavarman chose the southeast corner of Yasodhapura, a space evidently free of buildings of durable materials, yet one where he could take advantage of the network of canals laid out by Yasovarman for his capital.

King Suryavarman II (1113-1150), the builder of Angkor Wat was a devotee of Lord Vishnu. The philosophical understanding behind cremation in Hinduism is that the body made of five basic elements- Earth, Water, Air, Space and Fire, returns to those elements after the migration of the soul.Which means they are to be cast into a river(at least most of them). In the Hindu tradition, no one ever builds a funerary temple or mausoleum – so there is more to the site than that.Either, that it is a mausoleum but more so- a construction that cried out for an appropriate site to fit into.

No, the answer to understanding the Angkor is ancient Astronomy, Angkor Wat, City built with astronomic measurements to mimic the Gods in the Universe. It is plainly evident that the most appropriate access route to the site of Angkor Wat temple was from the west. Attributing unsubstantiated explanations or meaning to a fact of purely physical constraint is unwarranted.[1] Instead of calling the region where the temples of

Angkor Wat are located as South East Asia, which is an American term, Lawrence Palmer Briggs suggests we call it *Indo China* for the people living there were neither Hindus nor Buddhists but autochtshonous . I don't know what auto auto it is but definitely they were Hindus and the Buddhist period lasted hardly a few centuries more after the Hindu one.[2]

In his erudite paper-*Time, Space, and Astronomy in Angkor Wat*,Subhash Kak [3] elucidates:

" The most impressive aspect of this representation is that it occurs both at

the level of the part as well as the whole in a recursive fashion, mirroring the

Vedic idea of the microcosm symbolizes the macrocosm at various levels of

expressions. This is done not only in the domain of numbers and directions,

but also using appropriate mythological themes, and historical incidents.

In fact the entire stretch of South East Asia from Indonesia to Cambodia is strewn with remains of Indian influence. Travelers would not have missed that Bangkok's airport is called *Suvarnabhoomi* and the entrance of the airport depicts *Amrit Manthan,* the churning of the sea by *devas* to extract the elixir of life. The Indian influence in Indonesia –whose tourist haven of Bali is a Hindu majority province, is something that is fairly well know.

1.Monuments of Civilization: Ancient Cambodia,Donatella Mazzeo,Chiara Silvi Antonini, Han Suyin (Contributor), 1983 , Smithmark Publishers (first published October 1st 1978)

2..Sarton, G. (1951). [Review of *The Ancient Khmer Empire*, by L. P. Briggs]. *Isis*, *42*(3), 263–265. http://www.jstor.org/stable/226582

3.https://www.researchgate.net/publication/2889330_Time_Space_and_Astronomy_in_Angkor_Wat

These according to him, correspond to the periods of 432,000; 864,000; 1,296,000; 1,728,000 years for the Kali, Dvapara, Treta, and Krta yuga, respectively.

The mythological scenes skillfully use the oppositions and complementarities between the gods, goddesses, asuras, and humans dened over ordinary and sacred time and space.

Furthermore he points out that the various lengths and circumferences of units representing the motion of the moon may equal ;

1. 27, 28, 29 (naksatras or daysof the month) ,
2. 354 (days of the lunar year), or
3. 360 (tithis of the lunar year).
4. Other lengths represent the solar year (360, 365, or 366) or larger time cycles.

According to him the west-east axis represents the periods of the yugas.

1. The width of the moat is 439.78 cubit;
2. the distance from the first step of the western entrance gateway to balustrade wall at the end of causeway is 867.03 cubit;
3. the distance from the first step of the western entrance gateway to the
4. first step of the central tower is 1,296.07 cubit; and
5. the distance from the first step of bridge to the geographic center of the temple is 1,734.41 cubit.

In the central tower, the topmost elevation has external axial dimensions of 189.00 cubit east-west, and 176.37 cubit north-south, with the sum of 365.37. This division of the almost exact length of the solar year into unequal halves remained a mystery for some time until it was found to be connected with the Satapatha Brahman.-a numbers for the asymmetric motion of the sun.

All these are, however, astrological terms also which underlines the fact that astrological advanvces were so great that they linked this knowledge to astronomy. To understand this let us study the connection between the two.

2 picture composition: Aspara in Moon light/ To RIGHT Central tower of Angkor Wat, Cambodia with full Moon. Credit: Astronomy club Toutatis/S. Lamoureux

The Wat was built by the Khmer King Suryavarman II in the early 12th century in Yasodharapura present-day Angkor, the capital of the Khmer Empire, as his state.temple.

Breaking from the Shaivism tradition of previous kings, Angkor Wat was instead dedicated to Vishnu. As the best-preserved temple at the site, it is the only one to have remained a significant religious center since its foundation. The Khmer's adhered to the Indian belief that a temple must be built according to a mathematical system in order for it to function in harmony with the universe. Distances between certain architectural elements of the temple reflect numbers related to Indian mythology and cosmology.

The scale of Angkor Wat enabled the Khmer to give full expression to religious symbolism. The sheer size of the place leaves visitors in awe and the complex designs illustrate the skills of long gone priest architects. Every spare inch has been carved with intricate works of art. It is, above all else, a microcosm of the Hindu universe. As

a brilliant example of the synthesis of astronomy and architecture at Angkor Wat, the solar axes of the temple lead directly to the central sanctuary, a sanctum sanctorum devoted to the supreme solar god, Lord Vishnu. Vishnu manifests as one of the solar months, and the sun itself is thought to be his emanation.

Although the Sun gains stature through its conjunction with the center of Angkor Wat, Vishnu, and the king, it is worth noting that lunar alignments are also recorded along the western and eastern axis of the temple. As the measurements of solar and lunar time cycles were built into the sacred space of Angkor Wat, this divine mandate to rule was anchored to consecrated chambers and corridors meant to perpetuate the king's power and to honour and placate the deities manifest in the heavens above.
The solar and lunar alignments at Angkor Wat were alignments with the gods, alignments that tied the nation to the heavens above, and alignments that imbued the king with the power to rule by divine association.

Here are concrete astronomical observations you can see at Angkor Wat:

1. The rising sun aligning on equinox days with the western entrance of the state temple, Angkor Wat.
2. The movements of the moon can be observed from a variety of positions within the temple, and lunar cycles may have been recorded in the three sets of libraries in the interior court.
3. The bas reliefs of the third gallery can be understood in relation to the movements of the sun, which establish their counterclockwise direction.
4. The measurements of the temple appear proportional to calendric and cosmological time cycles.

These temples are inshort an Observatory.When you settle your feet at a specific location, the Universe, in a sense revolves around you. With some patience and time you can start to notice patterns and Recursions that you can calculate and even predict.

"In conclusion for me, the most amazing aspects of the ancient Khmer Civilization was their understanding of their place in the cosmos, and how the placement of the temples mirrored so many of the celestial movements.

A real ancient observatory with it's knowledge embedded on it's self. Through stone and art, they kept it all to be discovered again and again. "[1]

DEVARAJA

Jayavarman introduced into Cambodia with the help of a Brahmin guru, Hiranyadama, the idea of the Deva Raja (the king-God) which was somewhat similar to that of the Sailendra King of the Mountain cult. Jayavarman based his power on religion. He organized the state, founding several capitals – Hariharalaya, modern Roluous, Amarendrapura, probably built around Akyum, and finally Mahendraparvata or the Phom Kulen. Excavations on the summit of Phnom Kulen have revealed a number of temples that were completely hidden by thick forests and were mainly discovered by Philippe Stern and Henri Mouhot. In style, they provide a link between pre-Angkor and classical Angkor art.

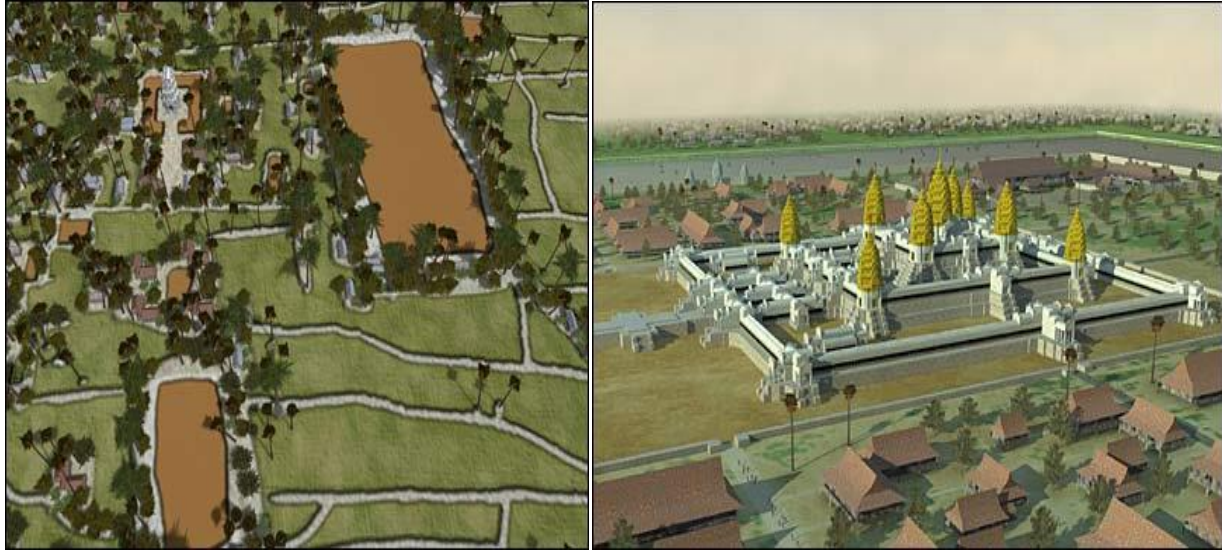
1. http://linksthroughspace.blogspot.com/2014/02/cambodia-2014-ancient-astronomy-angkor.html.. *Angkor wat procession and scene of battles.*

The Khmers were accomplished builders; Jayavarman's successors built temples enthusiastically. The cult of the King of the Mountain inspired each king to erect a magnificent shrine to perpetuate his memory. Thus arose the complex of Angkor Thom. Yasovarman I (889 – 901) was one of the outstanding rulers of the dynasty, and the founder of the first city of Angkor. This covered a much larger area than Angkor Thom, which was founded later by Jayavarman VII at the end of the twelfth century. These two cities partly overlap, but the former lies outside the southern wall of Angkor Thom. Yasovarman issued a large number of Sanskrit inscriptions written in Kavya style and built the Saiva temple of Phnom Bakheng.

Indravarman who laid the foundation of Angkor, is said to have studied the monistic Vedanta philosophy of the great Indian Sage Shankaracharya, with a Brahmin learned in that tradition.

Hydraulic Capital

Cambodia reached its peak during the reign of Suryavaman II (1113 – 1152), the builder of the matchless Angkor Wat, an epic in stone. With the death of Jayavarman II (1181 – 1220) the kingdom began to decline, falling finally before the advancing Thais.

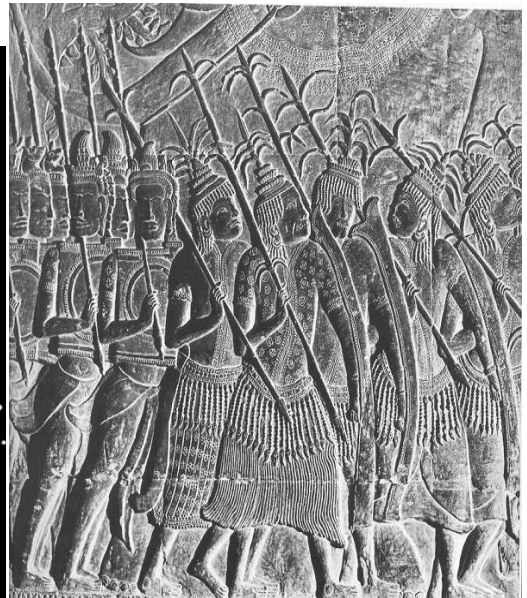
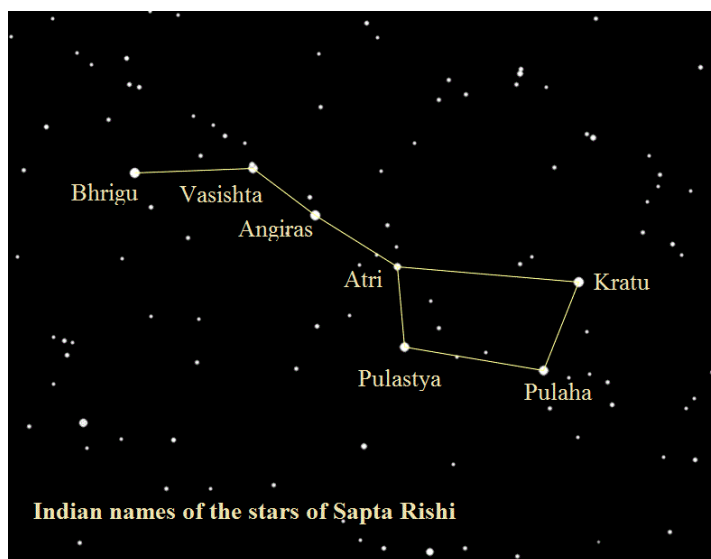
Angkor is a derivative of the Sanskrit Nagara, meaning city, and thom a Khmer word meaning great. Angkor can reclaim the reputation it once had as a "hydraulic capital".

Hydraulic Capital - Irrigation channels.

Angkow wat covering an area of five hundred acres is the largest and most impressive temple in the world. According to Henri Mouhot, who discovered it for the modern world: “this architectural work perhaps has not, and perhaps never has had, its equal on the face of the globe.”

Since his day, countless people, both admirers and skeptics, have stood spellbound before this majestic temple of Vishnu.

A raised causeway of flagstones, lined by a naga-balustrade, leads from the main road over a moat to the main gate of the temple. This gate house, which is a spacious building forming the front part of the wall that goes around the enclosure, is in itself a remarkable creation. A paved road 400 yards long leads to the temple. At the base, the temple is 223 by 242 yards, and its main tower is about 80 yards high. Structurally it is a three-stepped pyramid. Each storey is punctuated by towers at the corners and pavilions in the center. The main tower is on the third storey. The temple rises steeply in the form of three concentric rectangular galleries, each double the height of the preceding one, and connected by stairs and intervening open terraces. The inner most

gallery is dominated by five tall domes, the central one of which dominates the plain below. The entire building is constructed in sandstone, and if any wood was used, it has long since perished.

The building has been chiseled with endless bas-reliefs and beautiful designs and patterns. Flowers, birds, and dancing maidens decorate the walls. Hundreds of Khmer artists must have spend their entire lives on the work, yet is impossible to detect a single flaw in these acres of carved panels. The sculptors of Angkor wat who executed many scenes from the Ramayana, the Mahabharata, and the Harivamsa, must have had an intimate knowledge of Indian epic literature. Vishnu predominates but other gods also adorn the temple with their various incarnations and emanations. The outer gallery, running around the whole building, itself contains a half-mile of bas reliefs on the back wall, and there are about 1750 life-size apsaras, practically everyone in a different, magnificent head-dress.

In traditional Hindu astronomy, seven stars of Ursa Major identified with the names of Saptarshis///

All the princes received training in Indian philosophy and literature.

A number of persons of apparent Indian origin were present in the Khambuja kingdom and Brahmins were held in high esteem. For instance, Hiranyadama came from a janapada in India to teach Tantric texts to the royal priest, Sivakaivalya.

lthough the Khmers are so admirably remembered for their superb achievements in art, they patronized all branches of Indian learning. All the princes received training in Indian philosophy and literature. A number of persons of apparent Indian origin were present in the Khambuja kingdom and Brahmins were held in high esteem. For instance, Hiranyadama came from a janapada in India to teach Tantric texts to the royal priest, Sivakaivalya.

When Buddhism became the paramount religion of Cambodia is uncertain. It had long been flourishing and occasionally enjoyed royal patronage, but it was never the state religion and never held a dominant position. It seems likely that Siam, which was first influenced by Cambodia, later aided Cambodia's conversion to Buddhism. The change was almost complete; today Hinduism is practically extinct in Cambodia, except in a vestigial form in certain ceremonies and festivities. Hindu deities have been absorbed by Buddhism and relegated to subordinate positions, and even the Hindu gods in the great temples, such as Angkor Wat, have long been replaced by the images of the Buddha.

The Thais attacked Angkor Wat several times in the 1300s and 1400s and sacked the seat of the Khmer regime in 1431.

Over the centuries, numerous different groups - including Thai and Vietnamese invaders, French colonizers and Khmer Rouge guerrillas and the Americans with their carpet bombing - have trampled over Cambodia's ancient sites, each contributing to the damage.

To the French conservators, Angkor was archeological champagne, the best of the best.

Rescuing it became a technical passion. For 40 years the French concentrated on arresting further deterioration and by 1970 a hundred-man team, cranes and heavy cement-mixing equipment were reinforcing the massive jumble of stonework. Four out of Angkor's nine towers are gone, irretrievably lopped off by crunching weather forces.

http://www.hinduwisdom.info/Sacred_Angkor2.htm

some researchers have claimed that the very dimensions of many of the structures at Angkor Wat have astronomical associations. These associations emerge from consideration of the unit of length that was in use at that time, a unit known as the hat or "Cambodian cubit." There is some question as to how long a hat was, and indeed its definition may not have been uniformly applied; but a value of 43.45 centimeters (17.1 inches) for the length of a hat is suggested by the structures themselves.

Using this value, archaeologists discovered numerous dimensions of the temple that seem to have astronomical and cosmological significance—for example, the following:

- The dimensions of the highest rectangular level of the temple are 189 hat in the east-west direction and 176 hat in the north-south direction. Added together these give 365, the number of days in one year.
- In the central sanctuary, the distances between sets of steps is approximately 12 hat. There are roughly 12 lunar cycles, or synodic months (from full Moon to full Moon, say—the basis for our modern month) in one year.
- The length and width of the central tower add up to approximately 91 hat. On average, there are 91 days between any solstice and the next equinox, or any equinox and the next solstice.

Because of its orbit around the Earth, the Moon's apparent position in the sky relative to the background stars will appear to shift from night to night. Since it takes the Moon just over 27 days to complete one orbit (known as its sidereal period), it will during this time appear to move through 27 successive regions of the sky. In Hindu cosmology, these regions were known as the naksatras, or lunar mansions. In some contexts there were 27 lunar mansions, while in other contexts an additional naksatra containing the star Vega was included, giving 28 lunar mansions.

- The central tower at Angkor Wat contains nine inner chambers. If you total the dimensions of all of these chambers it equals 27 hat in the north-south direction and 28 hat in the east-west direction, corresponding to the possible number of lunar mansions. Also, the libraries have lengths measured along their interiors of 16 hat in the east-west direction, and either 12 or 11 hat in the north-south direction, depending upon whether or not the doorways are included. Added together, these also give either 28 or 27 hat. Finally, the north-south width of the libraries measured from the exteriors of the walls is again 28 hat.

Hindu cosmology recognizes four time periods, or Yugas, that are represented in the dimensions of the temple:

- The length of the Kali-Yuga, our current time period, is 2×60^3 years, or 432 thousand years. The width of the moat that surrounds the temple, measured at the water level, is approximately 432 hat.
- The length of the Dv apara-Yuga is 4×60^3 years, or 864 thousand years. The distance from the entrance to the inner wall is 867 hat.
- The length of the Treta-Yuga is 6×60^3 years, or 1,296 thousand years. The distance from the entrance to the central tower is 1,296 hat.
- The length of the Krita-Yuga is 8×60^3 years, or 1,728 thousand years. The distance from the moat bridge to the center of the temple is 1,734 hat.

Rarely in history has any culture given rise to a structure that so elaborately and expansively incorporates its concept of the cosmos. Angkor Wat stands as a striking and majestic monument in honor of the Universe and our place in it.(Angkor - The History of Astronomy - planetquest.org).

The Solar Numbers at Angkor Wat: Dr Subhask Kak (1949 -) is a widely known scientist and a Indic scholar. Currently a Professor at Louisiana State University, he

has authored ten books and more than 200 research papers in the fields of information theory, quantum mechanics, and Indic studies. He is a Sanskrit scholar and is author of Astronomical Code of the Rig Veda, and India at Century's End: Essays on History and Politics.

He has observed:

"The great Vishnu temple at Angkor Wat is known to have been built according to an astronomical plan. A little understood solar formula of the temple is identical to the one in the 2nd millennium BC Indian text called Shatapatha Brahmana. It was an expression of the Shatapatha astronomy."

Architectural plans published by Nafilyan (1969) were examined to Assess possible astronomical alignments in context of written records of the Khmer empire and specifically the reign of Suryavarman II (1113-1150AD) during which the complex was built. Twenty-two possible alignments are identified and their relationship to bas relief and Hindu time cycles examined.

Conclusions: 1. The rising sun appears aligned on equinox and solstice days with the western entrance of Angkor Wat.2. The movements of the moon can be observed from a variety of positions within the temple, and lunar cycles may have been recorded in the three sets of libraries.3. The bas reliefs of the third gallery can be understood in relation to the movements of the sun, which establish their counterclockwise direction. 4. The measurements of the temple appear proportional to calendric and cosmological time cycles.[1]

Jean Fillozat was the first to perceive that the relief function could be part of broader astronomical and numerological concepts embedded in Khmer architecture.

In 1976, a group of American scholars R. Stencel, F Gifford and E Moron, published a paper revealing a cosmic symbolism created by the relationship between structures and meaning in the design of Angkor wat. The theme was considerably expanded by Eleanor Mannikka in her book of 1996. On the basis of the study of a very large number of measurements of architectural elements at Angkor Wat, she established that the temple's dimensions are encoded with the meanings of Indian cosmology and numerology. She also noticed that some alignments of the monument's structures are closely related to astronomical events. The temple's architecture is a sort of religious and astronomical text, a text that could be read by knowledgeable people walking along its main pathways. For example, as the sun progresses on its annual round, it illuminates in a specific way the great continuous series reliefs of the 3rd gallery, revealing a most intriguing relationship between the passage of the sun and the content of the reliefs. In the first part of the year, it illuminates the main protagonists of the creation act (Churning of the Ocean of Milk).

(source: http://arxiv.org/abs/physics/9811040 and http://www.du.edu/~rstencel/Course s/angkor.htm

During the autumn equinox, on the side of the setting sun, the highlighted reliefs depict the terrible battle of Kurukshtra. During the dry season, the north gallery loses the sun, while the reliefs on the south gallery, lit up by the sun, take as their theme the kingdom of death.

Architectural symbolism

In ancient Cambodia, as in India, the highest religious authority, the Brahmins, formulated the sacred concepts on which the temple was based, and the main architect, who was also a religious teacher, carried out its construction according to the science of sacred architecture (vastu-vidyah).

During the medieval period, scientists in the Hindu world made many contributions to the field of astronomy. While their work was based on ancient sources from Greece and India;they updated methods for measuring and calculating the movement of heavenly bodies, and continued to develop models of the universe and the movements of the planets within it. So great was this contribution that in the " House of Wisdom" the famous Librafry in Baghdad, Arabian scientists translated studies in Sanskrit, Pahlavi, and Greek into Arabic.
The Study of Astrology: Astrology seeks to predict the influence of the heavenly bodies on events on earth, relying on understanding the movement of the planets and the ability to calculate their positions in the future. In this way, astrology was considered a branch of astronomy, and serious science. Astrologers offered their services in bazaars, where anyone could pay for horoscope readings and predictions; and they were employed at royal courts, to help rulers decide such matters as when to announce an heir or launch a military campaign, or to predict the future state of their kingdoms. Horoscopes were also devised at the foundation of capital cities, such as the three of Jayavarman II mentioned above.
The three tools of the astrologer were the astrolabe, used to determine the time by measuring the altitude of the sun or any visible stellar object; the ephemeris, a table that gives the positions of astronomical objects in the sky at a given time; and the dust board, a tablet covered with sand on which calculations could be made and erased. Most astrologers learned their practice by studying with a master, acquiring a basic knowledge of astronomy and mathematics and the ability to use astronomical instruments.
After taking the measurements and making their calculations, the astrologist would then interpret the signs and what they meant for the patron's future. These interpretations were based on the large body of literature associated with astrology, from manuals for interpreting signs to treatises that ascribed certain personality traits to those born under each zodiac sign. These in turn influenced the artistic iconography of each sign.

The Zodiac in A: *"The great Vishnu temple at Angkor Wat is known to have been built according to an astronomical plan. A little understood solar formula of the temple is identical to the one in the 2nd millennium BC Indian text called Shatapatha Brahmana. It was an expression of the Shatapatha astronomy."*
In ancient Cambodia, as in India, the highest religious authority, the Brahmins, formulated the sacred concepts on which the temple was based, and the main architect, who was also a religious teacher, carried out its construction according to the science of sacred architecture (vastu-vidyah).

The Khmer temple was conceived according to the Indian tradition of a temple-mountain, of being the image of the mountain where the gods lived, Mount Meru. This mountain was located north of the Himalayas, surrounded by the four water extensions which separate the continents. Mount Meru floats over the primordial ocean, symbolically represented by moats or the baray surrounding the temple. Since this mountain had four peaks with a higher fifth at the center, the central sanctuary

Aerial view of Angkor wat.

of Angkor Wat had to have a similar configuration. Moreover, since Mount Meru was the center of the universe in Indian cosmology, Angkor wat too had to be the center of the cosmos. Thus this place was charged with sacred meaning.(source: Sacred Angkor - By Vittorio Roveda p. 1 – 22).

Symbolic diagram of the Universe ?

According to Graham Hancock, Angkorwat and all the temples were conceived by its builders as a symbolic diagram of the universe. The notion of a land that is the 'image of heaven' on which are built cosmic temples with 'halls that resemble the sky' was an idea that took root in Angkor wat. Angkor wat consists of a series of five inter nested rectangular enclosures. The short dimensions are aligned with high precision to true north-south, showing 'no deviation whatever' according to modern surveys. The long dimensions are oriented, equally precisely, to an axis that has been deliberately 'diverted 0.75 degrees south of east and north of west'.

The first and outermost of the five rectangles that we find ourselves looking down on from the air is the moat. Measured along its outer edge it runs 1300 meters north to south and 1500 meters from east to west.

Its 'ditch', (moat) 190 meters wide, has walls made from closely fitted blocks of red sandstone set out with such precision that the accumulated surveying error around the entire 5.6 kilometers of the perimeter amounts to barely a centimeter.

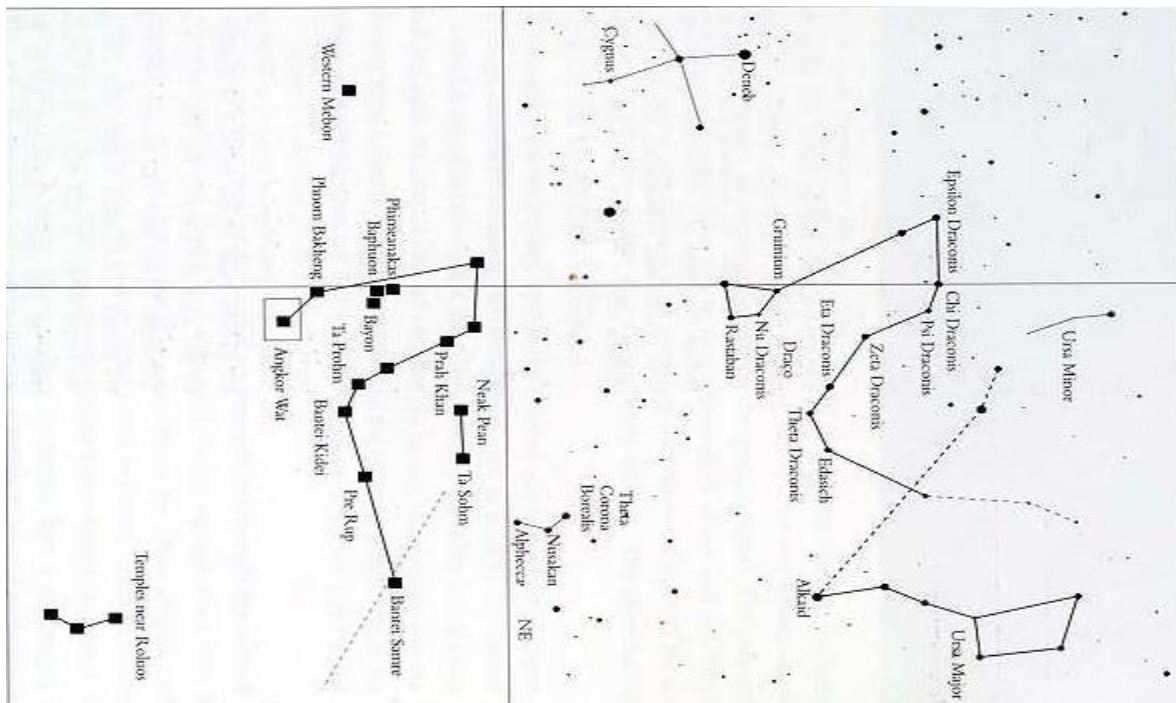
Angkor wat's principal entrance is on the west side where a megalithic causeway 347 meters long and 9.4 meters wide bears due east across the moat and then passes under a massive gate let into the walls of the second of the five rectangles. This second enclosure measures 1025 x 800 meters. The causeway continues eastward through it, past lawns and subsidiary structure and a large reflecting pool, until it rises on to a cruciform terrace leading into the lowest gallery of the temple itself. This is the third of the five inter nested rectangles visible from the air and precision engineering and surveying are again in evidence – with the northern and southern walls, for example, being of identical lengths, exactly 202.14 meters.

Ascending to the fourth rectangle, the fourth level of Angkor Wat's gigantic central pyramid, the same precision can be observed. The northern and southern walls measure respectively 114.24 and 114.22 meters. At the fifth and last enclosure, the top level of the pyramid – which reaches a height of 65 meters above the entrance causeway – the northern wall is 47.75 meters in length and the southern wall 47.79 meters.

According to a study published in the journal Science, these minute differences, 'less than 0.01 percent', demonstrates an 'astounding degree of accuracy' on the part of the ancient builders.

The sun rising over the central tower of Angkor wat at dawn on the Spring equinox.

Angkor wat is the largest and most elaborate single edifice in the entire Angkor scheme.

The Draco-Angkor correlation-The principal monuments of Angkor model the sinuous coils of the northern constellation of Draco. There seems to be no doubt that a correlation exists: the correspondence between the principal stars of Draco and at least fifteen of the main pyramid-temples of Angkor are too close to be called anything else.

The Angkor-Draco correlation.

(image source: Heaven's Mirror: Quest for the Lost Civilization - By Graham Hancock and Santha Faiia p. 115 - 199).

Cycles of the Ages :

A detailed survey of Angkor Wat published in Science magazine in July 1976 reveled that even the causeway incorporates cosmic symbolism and numbers encoding the cycles of time.

The axis of the arrow-straight causeway of Angkor can be seen to extent beyond the temple's moat and to reach out towards the distant horizon - showing that its builders thought expansively, in very large-scale terms. Within its moat, all the dimensions of the temple are precisely calibrated to express a grand cosmological and numerological scheme related to the precession of the equinoxes.

After establishing the basic unit of measure used in Angkor as the Khme hat (equivalent to 0.43434 meters) the authors of the survey go on to demonstrate that axial lengths along the causeway appear to have been adjusted to symbolize or represent the great 'world ages' of Hindu cosmology:

"These periods begin with the Krita Yuga or 'golden age' of man and proceed through the Treta Yuga, Dvarpara Yuga and Kali Yuga, the last being the most decadent age of man. Their respective durations are 1,728,000 years; 1,296,000 years; 864,000 years; and 432,000 years."

It therefore cannot be an accident that key sections of the causeway have axial lengths that approximate extremely closely to 1,728 hat, 1,296 hat, 864 hat, and 432 hat – the yuga lengths scaled down by 1000. 'We propose', conclude the authors, 'that the passage of time is numerically expressed by the lengths corresponding to yugas along the west-east axis."

Angkor wat's dominant feature is its long and massive east-west axis which locks it uncompromisingly to sunrise and sunset on the equinoxes. In addition, the temple is cleverly anchored to ground and sky by markers for other key astronomical moments of the year. For example, reports Science:

"It is interesting to note that there are two solstitial alignments from the western entrance gate of Angkor Wat. These two alignments (added to the equinoctial alignment already established) mean that the entire solar year was divided into four major sections by alignments from just inside the entrance of Angkor Wat. From this western vantage point the sun rises over Phnom Bok (17.4 kilometers to the north-east) on the day of the summer solstice…The western entrance gate of the temple also has a winter solstice alignment with the temple of Prast Kuk Bangro, 5.5 kilometres of the south-east."

(source: Heaven's Mirror: Quest for the Lost Civilization - By Graham Hancock and Santha Faiia p. 115 - 199).

Why does Angkor Wat face West?

Henri Parmentier writes in his book, Guide to Angkor: "The temple of Angkor Wat, contrary to most other monuments which face east, extends from west to east, this transposition is doubtless explained by the fact that it was a funeral temple." George Coedes writes of Angkor Wat:

"It is a masterpiece of Khmer art, built during the life time of the King to serve him afterwards as a funeral temple in which he was to be deified as a statue of Vishnu with the posthumous name of Paramavishnuloka."

Win Swaan in his book, Lost Cities of Asia writes

"Though many Khmer temples seem to have fulfilled both these functions (temple and mausoleum), at Angkor Wat alone were the death-centred attributes triumphant and paramount. Thus, it alone is oriented not towards the source of light and life, the east; but towards the west, the direction associated with the setting sun, darkness and death."

Priests & Brahmins and reading of the Horoscope

The state craft of the Khemers was eclectic that is denoting or belonging to a class of ancient philosophers who did not belong to or found any recognized school of thought but selected doctrines from various schools of thought. That they used whatever means to achieve their statecraft. And it would be no strange on our part to assume that Horoscope, astronomy,astrology,predictions played an important part in "visualizing" the future and as a means to guide strategy. How Astrology and astronomy was ujsed to build the tempes is a topis we have touched upon in the preceding paragraphs. To conclude let us assess the roe to ASTROLOGY.

"The story of Jayavarman VII's life includes the depth of his Buddhist religious sentiments and at the same time his skill as a military tactician and political leader. These different roles worked with his religious sensibilities to his advantage; there was no contradiction between his apocalyptic Mahāyāna and likely tantric apotheosis and his vision of imperial rule. Cambodian and regional politics of the day were locally segmented under individual rulers who engaged in shifting alliances with their neighbors. Jayavarman VII was thus able to form a critical mass of alliances with his neighbors, Khmer and Cham, to his advantage. The governance of medieval Southeast Asia, and especially the Khmer, was decentralized. Jayavarman VII's astute political sensibilities, fueled by his Buddhist religious vision and authenticated by Indian-derived expertise enabled his construction of a Khmer empire."

Suryavarman II, (died *c.* 1150), king of the Khmer (Cambodian) empire renowned as a religious reformer and temple builder. Under his rule the temple of Angkor Wat, the world's largest religious structure, was constructed.
Suryavarman defeated rival claimants to the throne and established sole rule over the Khmer empire by 1113, reuniting the empire after more than 50 years of unrest. Warlike and ambitious, he expanded the limits of the empire to include much of what is now Thailand; his patronage stretched as far west as the frontiers of the Burmese state of Pagan, south to the coast of the Gulf of Thailand (including part of the eastern coast of the Malay Peninsula), and east to the kingdom of Champa in the southern part of what is now Vietnam.

Suryavarman was formally crowned in 1113, with his guru, the powerful priest Divakarapandita, presiding. The king was a religious reformer who blended the mystical cults of Vishnu and Shiva, supreme Hindu deities, and promulgated Vaishnavism as the official religion, rather than Buddhism, which had briefly flourished under his predecessors.

Angkor Wat, dedicated to Vishnu, was begun in the early years of Suryavarman's reign and was not finished until after his death. Surrounded by a wall and a moat, the building is decorated with sculptures portraying Suryavarman as Vishnu; he is shown reviewing his troops, holding audiences, and performing other functions of

a sovereign. Suryavarman also sponsored the construction of several other temples in the style of Angkor Wat. After his death, Angkor Wat also became his tomb.

In 1116 Suryavarman resumed diplomatic relations (in abeyance since the 9th century) with the Chinese, who officially recognized his kingdom as their vassal in 1128. By sending tribute to China, he acquired a powerful ally to discourage attacks from neighbouring Southeast Asian kingdoms and ensured that China would not interfere in Khmer domestic affairs.

From 1123 until 1136 Suryavarman waged a series of unsuccessful campaigns against Dai Viet, the Vietnamese kingdom that had asserted its independence from China in 939. He attempted a land attack through Laos to Nghe An in 1128 and met with defeat. A few months later, Suryavarman's fleet of 700 junks began a long harassment along the coast in the Gulf of Tonkin. Suryavarman persuaded the kingdom of Champa to assist him in these efforts, but in 1136 the Cham king, Jaya Indravarman III, defected and made an alliance with the Vietnamese.
Suryavarman deposed the Cham king in 1144 and annexed Champa in the following year. The Chams, under a new leader, King Jaya Harivarman I, defeated Khmer troops in a decisive battle at Chakling, near Phan Rang, in southern Vietnam. Suryavarman put his brother-in-law, Harideva, on the Cham throne, but Jaya Harivarman I deposed him and reclaimed that throne. In 1150 Suryavarman died in the midst of a new campaign against Champa, leaving his people exhausted by war and victimized by the once-subservient Chams, who eventually ravaged Angkor.

Divākarapaṇḍita, original name Divākara, (born 1040, Cambodia—died *c.* 1120), Hindu of the Brahman (priestly) caste who rose through religious and administrative ranks to serve four Cambodian kings—Harshavarman II, Jayavarman VI, Dharanindravarman I, and the great Suryavarman II—and who was the most trusted adviser to three of them.
The highly opportunistic Divākara was able not only to survive the successive usurpations of monarchies but also to ingratiate himself with each new sovereign. Divākarapaṇḍita played a singular role in Cambodian history, for it was at his urging that Suryavarman II began construction of the temple of Angkor Wat, one of the world's largest religious edifices and certainly one of the greatest achievements of ancient Khmer, or Cambodian, civilization. One of the monuments of Angkor Wat commemorates this powerful Brahman.
Jayavarman VII, a political and military leader , used Indian religious visions and prototypes as models to build a remarkable cultural edifice. In his reign, as with those before and after him, religions (especially Indian Buddhism and Brahmanical or "Hindu" ideologies) were the central systems for validating royal authority. Indian Brahmins and Khmer scholars were literate in Sanskrit and Indian myth is surely correct.

Sheldon Pollock. *The Language of the Gods in the World of Men: Sanskrit, Culture, and Power in Premodern India*. Delhi: Permanent Black, 2007: 129–131, etc. See Chandler 2000: 72, who mentions a centuries-long Buddhist presence at Angkor. In his reign, as with those before and

after him, religions (especially Indian Buddhism and Brahmanical or "Hindu" ideologies) were the central systems for validating royal authority.
Many of the medieval Angkor monuments were constructed as Buddhist or Brahmanical, and several served both religions over time.

"Further, in medieval Cambodia a key Indian political structure was a process called "maṇḍalification" or "sāmantization," a phenomenon known in small Indian Pāla kingdoms and a likely model for the Khmer kings.17 This was arguably a key component of the Indian influence on the Khmer. The root of this key belief was that if a king was properly consecrated he could transform himself and his environments into a sacred realm (*maṇḍala*) under his control. Consecrated kings became the central Buddhas of these *maṇḍala* realms; their retinues became attendant bodhisattvas, protectors and so on. Their kingdoms became perfected Buddha heavens, their edicts and rule became enlightened speech or mantras, and their motives and inspiration led to Buddhist enlightenment. It may well be that ideologically, the Buddhism adopted by the court was favored precisely because it flattered the imperial self image. "Que Jayavarman se soit considéré comme un Bouddha vivant."18 The kings' adoption of Buddhism was "… wholesale conversion, the fundamental transformation, of a human domain into a Buddha-realm, an empire governed by superhuman insight, power, and law."[1]

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1. Medieval Khmer Society: The Life and Times of Jayavarman VII (ca. 1120–1218),Paul Nietupski,John Carroll University, US- https://www.asianetworkexchange.org/articles/10.16995/ane.280/

2. See my Tripartite article series_ the Brahmanical skies of Angkor I,II,III

Astrology in Cambidia TODAY: In a nation scarred by the events of the Khmer Rouge era, for those old enough to have lived through the Pol Pot years in the late 1970s, any new real or threatened disaster tends to rekindle the trauma, and even for younger people, the intergenerational trauma may resonate. This reaction echoed the saying, 'When a cow has a wound on its back and a crow flies above him, the cow will instantly swish its tail,' /koo dɑmbav knɑɑŋ kʔaek haə rumlɔɔŋ rumsaay kɑntuy/ (គោដំបេខ្នងក្អែកហើររំលងរំសាយកន្ទុយ).

The cow signifies the traumatized people who carry their mental wounds on their backs and are quick to be retraumatized by real, threatened, or imagined threats. A festering wound will attract the crow, which is a predator that feeds on carrion and is popularly believed to be a portent of disaster. People, on sensing the 'crow,' are triggered to quickly 'swish it away with their tail.'

Maurice Eisenbruch (2020) Krʊəh: astrology, risk perception, and vulnerability to mishap and disaster in Cambodia, Journal of Risk Research, 23:9, 1135-1157, DOI: 10.1080/13669877.2020.1778770

Khmer Calendar (Chhankitek)

12 Cambodia Zodiac Signs & Their Characteristics

Bizot François, "The Lost Horoscope of Cambodian Astrologers", *Extrême-Orient Extrême-Occident*, 2013/1 (No 35), p. 171-197. DOI: 10.4000/extremeorient.286. URL: https://www.cairn-int.info/journal-extreme-orient-extreme-occident-2013-1-page-171.htm

In Cambodia, based on Khmer culture, there are 12 Cambodia zodiac signs in a year which are 12 zodiac animals. It is because Cambodia people follow the Khmer calendar and Buddhist calendar as well. It initially stems from the Chinese lunar calendar, and then many other Buddhism Asian countries adapted, including Cambodia. Then it becomes an integral part of Cambodia culture in general and Khmer culture in particular.

Khmer Calendar (Chhankitek)

Khmer's traditional calendar, known as Chhankitek, means the lunar calendar. Cambodian combine a 12-animal system and a ten-numeric cycle system to create a full calendar system. One zodiac animal goes with one numeric cycle will form a zodiac year.
12 Cambodia zodiac signs are Rat, Ox, Tiger, Rabbit, Dragon, Snake, Horse, Ram, Monkey, Rooster, Dog, and Pig. There are also particular names of these animals in Khmer, and they are not translated but keep special and unique names. The Khmer names of those 12 zodiac signs are Jute, Chlov, Karl, Thos, Rorng, Masagn, Momee, Momay, Voke, Roka, Jor, and Koar respectively. Each person has an equivalent zodiac animal that shares some characteristics like personality, luck, and compatibility.
The 10-numeric cycle system (or Sak) has 10 numbering schemes from 1 to 10 to identify a specific year. It starts with Khmer words including Aek, Tou, Trey, Jaktva, Pagnjak, Chor, Sabpak, Ardak, Noppak, and Somrithik, which mean 1 to 10 respectively. Then, "Sak" is added after each above word to form a Cambodia zodiac year. The sak system is used to differentiate the same animal years. For instance, people born in 1998 and 2010 both belong to the year of Tiger, but different sak (1998 – the year of the

tiger 10th year – Karl Somrithiksak; 2010 – the year of the tiger 2nd year – Karl Tousak).

	ចក្រ	Transliteration	Animal	Year
1	ជូត	Jute	Rat	1984, 1996, 2008
2	ឆ្លូវ	Chlov	Ox	1985, 1997, 2009
3	ខាល	Karl	Tiger	1986, 1998, 2010
4	ថោះ	Thos	Rabbit	1987, 1999, 2011
5	រោង	Rorng	Dragon	1988, 2000, 2012
6	ម្សាញ់	Masagn	Snake	1989, 2001, 2013
7	មមី	Momee	Horse	1990, 2002, 2014
8	មមែ	Momay	Goat	1991, 2003, 2015
9	វក	Voke	Monkey	1992, 2004, 2016
10	រកា	Roka	Rooster	1993, 2005, 2017
11	ច	Jor	Dog	1994, 2006, 2018
12	កុរ	Kaor	Pig	1995, 2007, 2019

12 Cambodia Zodiac Animals

According to a legend, on the last day of the Buddha, he invited all animals to join in, but just 12 came. Then, he put each animal's name for each year to reward them. These 12 zodiac animals are believed to be all kind animals with distinctive and special traits. Let's explore and see what zodiac sign you are, or schedule a Cambodia tour package to learn about Cambodia culture by yourself.

1. Year of the Rat

– Rat years: 1948, 1960, 1972, 1984, 1996, 2008, 2020, 2032…
– Lucky number: 2, 3
– Strengths: Adaptable, smart, cautious, acute, alert, positive, flexible, outgoing, cheerful
– Weaknesses: Timid, unstable, stubborn, picky, lack of persistence, querulous
– Best Matches: Ox, Dragon, Monkey

2. Year of the Ox

– Ox years: 1949, 1961, 1973, 1985, 1997, 2009, 2021, 2033…
– Lucky number: 1, 9
– Strengths: honest, industrious, patient, cautious, level-headed, strong-willed, persistent

– Weaknesses: obstinate, inarticulate, prudish, distant
– Best matches: Rat, Snake, Rooster

3. Year of the Tiger

– Tiger years: 1926, 1938, 1950, 1962, 1974, 1986, 1998, 2010, 2022,…
– Lucky numbers: 1, 3, 4
– Strengths: Tolerant, loyal, valiant, courageous, trustworthy, intelligent, virtuous
– Weaknesses: Arrogant, short-tempered, hasty, traitorous
– Best Matches: Dragon, Horse, Pig

4. Year of the Rabbit

– Rabbit years: 1915, 1927, 1939, 1951, 1963, 1975, 1987, 1999, 2011, 2023…
– Lucky number: 3, 4, 9
– Strengths: Gentle, sensitive, compassionate, amiable, modest, and merciful
– Weaknesses: Amorous, hesitant, stubborn, timid, conservative
– Best matches: Monkey, Pig, Dog

5. Year of the Dragon

– Dragon years: 1916, 1928, 1940, 1952, 1964, 1976, 1988, 2000, 2012, 2024…
– Lucky number: 1, 6, 7
– Strengths: Decisive, inspiring, magnanimous, sensitive, ambitious, romantic
– Weaknesses: Eccentric, tactless, fiery, intolerant, unrealistic
– Best Matches: Rooster, Rat, Monkey

6. Year of the Snake

– Snake years: 1917, 1929, 1941, 1953, 1965, 1977, 1989, 2001, 2013, 2025, 2037…
– Lucky number: 2, 8, 9
– Strengths: Soft-spoken, humorous, sympathetic, determined, passionate, smart
– Weaknesses: Jealous, suspicious, sly, fickle, nonchalant
– Best matches: Dragon, Rooster

7. Year of the Horse

– Horse years: 1918, 1930, 1942, 1954, 1966, 1978, 1990, 2002, 2014, 2026…
– Lucky number: 2, 3, 7
– Strengths: warm-hearted, upright, easygoing, independent, endurable, powerful, and positive.

– Weaknesses: wasteful, frank, irresolute
– Best matches: Tiger, Rabbit

8. Year of the Ram

– Ram years: 1919, 1931, 1943, 1955, 1967, 1979, 1991, 2003, 2015, 2027, 2039,…
– Lucky number: 3, 4, 9
– Strengths: gentle, softhearted, considerate, attractive, hardworking, persistent, thrift
– Weaknesses: indecisive, timid, vain, pessimistic, moody, weak-willed
– Best matches: Horse, Rabbit, Pig

9. Year of the Monkey

– Monkey years: 1920, 1932, 1944, 1956, 1968, 1980, 1992, 2004, 2016, 2028…
– Lucky number: 1, 7, 8
– Strengths: enthusiastic, self-assured, sociable, innovative
– Weaknesses: jealous, suspicious, cunning, selfish, arrogant
– Best matches: Ox, Rabbit

10. Year of the Rooster

– Rooster years: 1921, 1933, 1945, 1957, 1969, 1981, 1993, 2005, 2017, 2029…
– Lucky number: 5, 7, 8
– Strengths: Independent, capable, warm-hearted, self-respect, quick-minded
– Weaknesses: Impatient, critical, eccentric, narrow-minded, selfish
– Best matches: Ox, Snake

11. Year of the Dog

– Dog years: 1922, 1934, 1946, 1958, 1970, 1982, 1994, 2006, 2018, 2030, 2042,…
– Lucky number: 3, 4, 9
– Strengths: Valiant, loyal, responsible, clever, courageous, lively
– Weaknesses: Sensitive, conservative, stubborn, emotional
– Best matches: Rabbit

12. Year of the Pig

– Pig years: 1923, 1935, 1947, 1959, 1971, 1983, 1995, 2007, 2019, 2031, …
– Lucky number: 2, 5, 8
– Strengths: Warm-hearted, good-tempered, loyal, honest, gentle
– Weaknesses: Naive, gullible, sluggish, short-tempered
– Best matches: Tiger, Rabbit

Chapter 8

Archaeoastronomy in the Khmer Heartland

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The heartland of the Khmer empire is filled with magnificent monuments built over the course of many centuries. These monuments include the world-famous “state temples,” such as Angkor Wat, and also many other temples as well as huge water reservoirs. Using data from Google Earth as well as GIS and reconstructing the ancient sky with Stellarium, we investigate the relationships of astronomy with orientation and topography in a systematic fashion, following the methods of modern Archaeoastronomy and strictly keeping at bay vague and/or esoteric proposals put forward by previous writers. As a result, a very clear pattern of cardinal orientation and alignment arises, connected with the temples’ symbolism and the management of power by the Khmer kings. As a bonus, a comparison with the Angkor monuments allows us to put forward an explanation for the anomalous orientation of two unique “peripheral” state temples of Cambodia.

1. INTRODUCTION

The Khmer empire flourished between the eighth and the fourteenth centuries AD. The heartland of the empire was located in the vast Cambodian lowlands, where the kings developed monumental temple architecture as a means for the explicit representation of their power. As a consequence, a series of masterpieces—and especially the so-called “state temples,” like Angkor Wat—were constructed [Jacques and Lafond 2004]. Geographically, these buildings were concentrated in the environs of today’s Siem Reap, first in the area of Roulos, and then later in Angkor, some 15 kilometers to the north. There are, however, two exceptions: Koh Ker, located in northern Cambodia, 85 kilometers northeast of Angkor, and Preah Khan of Kompong Svay, 100 kilometers to the east.

The Khmer state temples are vast rectangular enclosures with a central unit and several auxiliary buildings and shrines. The aims of such architectural ensembles, whose design in many cases also included the construction of huge barays (water reservoirs), were quite complex, since they functioned as royal residences and major cult centers attesting the beliefs and religiosity of the kings. A further funerary function for the afterlife of the king, although likely, has never been proved. Until a few years ago the temples were even conceived of as “concentrated state towns,” but recent research and mapping on large scale has shown the complexity of the

urbanization of the whole Angkor area, casting doubt on the idea of state temples as "capital cities" [Evans and Fletcher 2015; Stark et al. 2015].

Another important aspect highlighted by recent research is the sophistication of the hydraulic system, which led to an impressive modification of the natural environment. It was organized into three grand areas, with the major barays acting as central collectors and with flow management systems towards the south. The barays thus had both a practical and ritualistic function in being explicitly associated with the state temples and embellished with the Mebons, the island temples built inside them [Fletcher et al. 2015].

As far as the interpretation of each temple is concerned, the connection between the two Khmer religions— Buddhism and Hinduism—must be taken into account. Their relationship was sometimes exclusive and at other times syncretistic, depending on the attitude of the ruling king. Documented historical phases of Buddhism/Hinduism reveal conflict and consequent defacing of the temples' images. In any case, construction of the temples was clearly considered mandatory to demonstrate the greatness and in some sense the divinity of the king himself. The temples thus reflected concepts related to the foundation of power and to the cosmic order. Thus, it comes as no surprise that a complex religious symbolism is self-evident in all these buildings. Inspiration certainly came from Indian sacred architecture [Malville 2000; Kak 1999; Kak 2002] and, in particular, the characteristic layout of Angkor Wat and of many other temples—a "pyramid mountain" surrounded by a moat—is usually considered to correspond with the cosmology of Mount Meru and the surrounding Sea of Milk, from which ambrosia was churned by the gods and demons.

The religious symbolism associated with cosmic order is reflected in the orientations of ancient buildings worldwide [Magli 2013], and Angkor is no exception. It is indeed well known that almost all the temples, enclosures and barays are oriented cardinally. However, although this notion is widespread [Petrotchenko 2012], as far as the present author is aware, no attempt has been made to analyze it quantitatively, using the methods of modern Archaeoastronomy [Ruggles 2015; Magli 2016]. Furthermore—and curiously—the same pattern is not respected at the two complexes located outside the heartland, so that their orientations can be defined as "anomalous." This fact has been noticed in the literature, but never explained. Yet another point which has been left unexamined is the reported existence of alignments between different temples.

In spite of, or perhaps owing to, this lack of professional archaeoastronomical investigation, pseudo-archaeological interpretations of Angkor have easily found their way into the popular media. The same holds for the “astronomical numerology” of Angkor Wat, which has been made famous by a controversial book [Mannikka 1996]. The present author has many qualms about this issue, but discussing it would be beyond the scope of the present paper.

To study the archaeoastronomy of the Angkor temples, a complete database of orientations at Angkor has been constructed here using satellite imagery, and the sky over Angkor has been reconstructed using the affordances of the planetarium software Stellarium. Although database (Table 1) is presented in a chronological fashion, the reader is warned that not all the datings of the temples are firmly established in the archaeological literature. This allows us to investigate not only orientations but also the probability of intended alignments between buildings dating to different periods. By comparison with the Angkor results, the anomalous orientations of the peripheral temples can also be interpreted as representing two different breaks in the traditional pattern of orientation.

2. THE ORIENTATION OF THE ANGKOR MONUMENTS

The present author has previously gathered sample data of Angkor temples with a precision magnetic compass. However, in order to present a complete analysis based on a homogeneous, reliable and complete set of data, the azimuths used in this paper (reported in Tables 1 and 2) have all been obtained with the compass tool of Google Earth Pro. The accuracy of Google Earth in areas covered by high-resolution images is usually very good [Potere 2008], and in particular—as the author has verified by personally comparing satellite data with directly acquired theodolite measures in many different countries—the error in azimuth does not exceed ±½°. The reliability of this estimate is particularly solid in the present case because all the data have been subjected to a double-blind control. In fact, the author was kindly allowed to consult the GIS database currently being developed by the Greater Angkor Project, and in all cases the azimuth measures furnished by this database were very close to those of Google Earth; the two “virtual campaigns” have of course been done independently, that is, without mutually adjusting the way of taking measures. As far as the horizon is concerned, it is flat for almost all monuments (the case of Angkor Wat will be treated separately) and, as we shall see, the monuments by themselves actually work as artificial horizons.

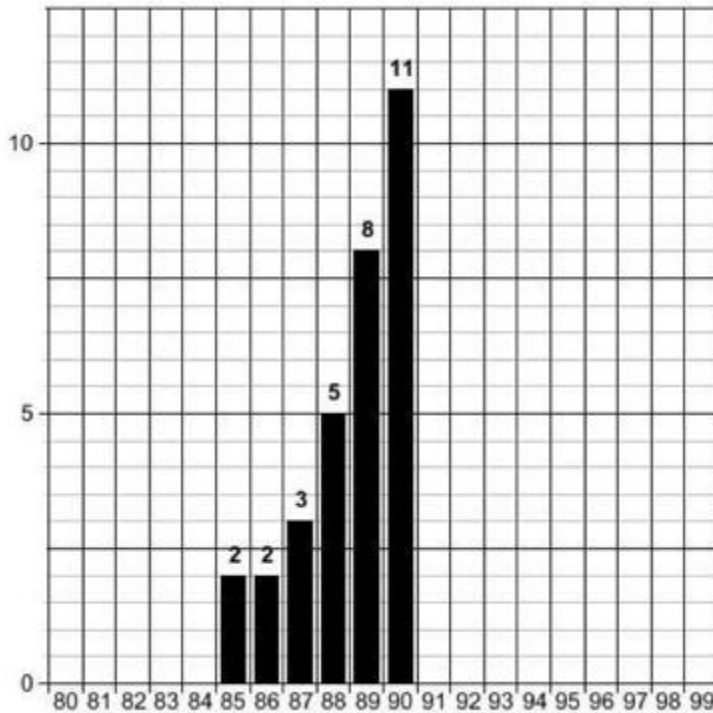
The following monuments have been listed and measured:

1. State temples.
2. Barays. The barays were handled as monuments in their own right, since their size and meticulous orientation are difficult to reconcile with purely functional aims. The results of the paper support the view that they were an essential part of the building program associated with the legitimization of kingship.
3. Island temples. They were, in many cases, constructed in already existing barays, typically by successor kings.
4. The most important secondary temples, either of royal or private construction.

Except for Angkor Wat and the secondary temple of Wat Athvear constructed by the same king, the main entrance of all the temples is to the east. For each temple, a convention similar to that commonly used for Greek temples has thus been followed, viz., the azimuth is given from inside looking out. The results (Table 1, reported schematically in Fig. 1) show that there is an obvious pattern of orientation towards true east exhibited by all the data. Since the rectangular enclosures are sometimes not perfectly squared, in the table both azimuths of the east-west and of the north-south sides are reported, but the analysis is based on the azimuths of the east-west sides.

All of the 31 monuments considered lie within an interval as small as five degrees, between 85° and 90°. It is obvious that there is no need of statistics to conclude that the orientation was intentional. A first point is, therefore, fully confirmed: these monuments were connected to ideas of cosmic order in architecture, which imposed an orientation to the cardinal points. But the data tell us more than that. Indeed, 19 monuments out of 31 are concentrated between 89 and 90 degrees, and all those temples not perfectly oriented to due east exhibit a slight deviation exclusively to the north of east; not even one exhibits a deviation, however small, to the south of east. Are these small deviations only due to errors committed by the builders in the measurement process, or are they intentional? It is clear from the monuments themselves that the Khmer architects were extremely precise. The method they used to find the cardinal directions was probably based on the sun, a feature chosen for both religious and practical reasons. Indeed, finding north using the stars requires either the observation of the directions of rising and setting of a bright star on a flat, level horizon (a thing quite difficult to achieve in the humid environment of Angkor) or the observation of the motion of a circumpolar star (again, very difficult due to the very low height of the north celestial pole). Furthermore, owing to precession, no “pole star” was available in Khmer times. In contrast, the traditional method of finding cardinal directions by bisecting the shadows of a gnomon on a circle—the “Indian circle”—was certainly well known to the Khmers.

Fig. 1. Orientation histogram (azimuth in degrees vs. number of monuments) of 31 monuments of the Angkor Heartland.

Using this method, a scrupulous astronomer can easily obtain an accuracy on the order of ½°, if not better. We are thus led to infer that even the slight deviations observed in some temples are deliberate. In contrast, if the

observed deviations had been caused by errors of measurement, then either a method which leads only to north-of-east errors was devised (which is unlikely), or the results should have been distributed randomly on both sides of the expected value of 90°.

The key to this riddle can be found by studying the orientation of Angkor Wat, to which we now turn. The azimuth of the temple is 270.5°. The likely reason is that the temple was originally dedicated to Vishnu, a god closely connected to the west, as can be seen, for instance, in the upper terrace of the Bayon, whose western shrine is devoted to him. The orientation of Angkor of course implies that a person entering the enclosure from the west gate is looking along the direction of azimuth 90.5°. This slight deviation has an interesting consequence, which is already very well-known [Stencel et al. 1976]. Looking from the west gate towards the temple at dawn on the equinoxes, the sun is seen to rise just above the central tower, "crowning" it almost vertically. The reason is that at the latitude of Angkor the trajectory of the sun is very steep, and therefore a small increase in azimuth leads to a strong increase in height; the "horizon height" of the central tower of Angkor Wat from the western entrance is ~5° and the

center of the sun reaches such an altitude at an azimuth of 90° 40' (Fig. 2) (astronomical data in this paper are taken from Stellarium, while declinations are calculated with the program Get-Dec, kindly provided by C. Ruggles, which takes into account refraction and parallax).

So far, so good for the Angkor Wat orientation. It is now obvious, however, that if a similar phenomenon must be observed in a temple whose main access is to the east, observation will occur at sunset, and the azimuth of the temple must be slightly misaligned to the north of east. In fact, in this way the direction of the observer looking along the temple axis will point slightly to the south of west, where the equinoctial sun will be seen to disappear just above the temple.

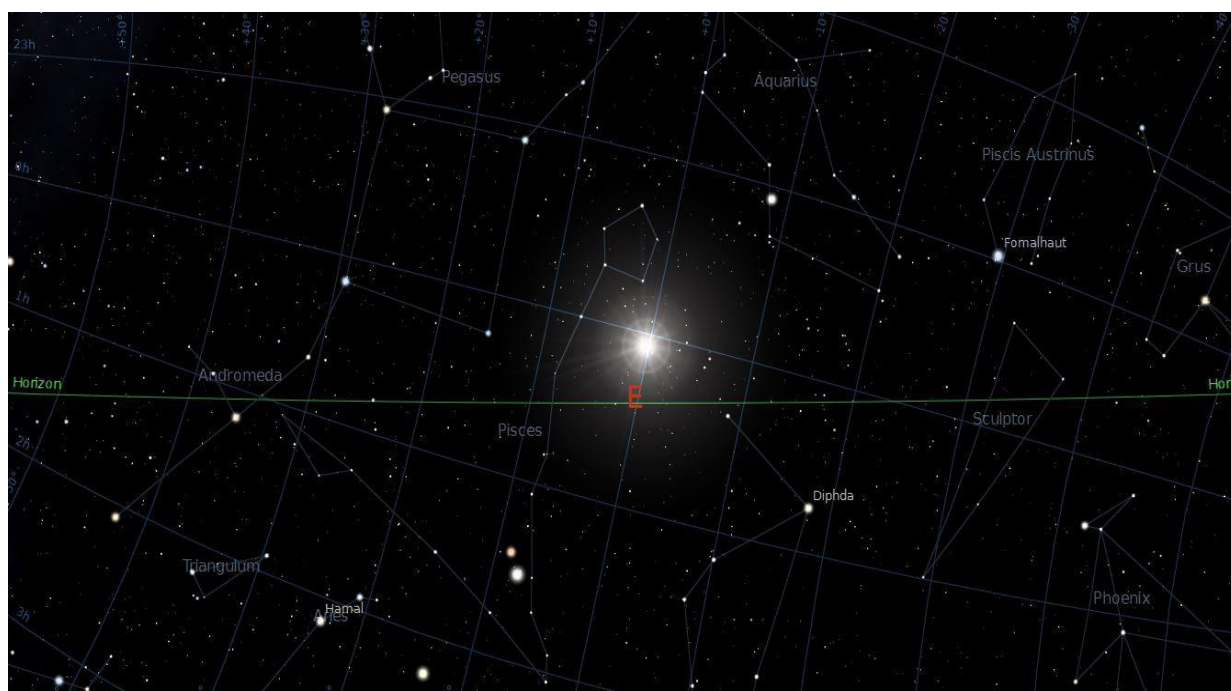



Fig. 2. Stellarium simulation of the sun rising at the Spring equinox at Angkor. The solar coordinates are: azimuth 90° 40', height 5°.

This is the likely explanation for the temples' orientation slightly to the north of east, and so in particular for the state temples Bakong, Phnom Bakheng and Bayon, whose azimuth ("exactly" like that of Angkor Wat, but in the opposite direction) is 89.5°. The phenomenon of the sun disappearing vertically behind the temple at the equinoxes in this latter case can be verified using Google Earth 3D visualization. The dimensions of the sun in Google Earth simulations are relatively big, but despite this the effect is unmistakable, as shown in Fig.3.

What is the meaning of such spectacular hierophanies? For Angkor Wat, Stencel et al. 1976 proposed a rather complex calendrical function, trying to frame the phenomenon into a series of supposed astronomical functions of the monument which, when viewed from different, suitably chosen points of the esplanade supposedly furnish, for example, the extrema of the motion of the moon at the horizon. This idea, however, is clearly biased by a strong selection effect of the observation points, and in any event there is no evidence that the Khmer monuments were used for making precise astronomical observations. The key is instead symbolic: the beautiful hierophany of the sun suspended just above the mountain temples at the equinoxes was very probably intended as a materialization of the connection of the temple itself with the heavens, since it brings about a match between the zenith in the sky and the cardinal directions on the ground.

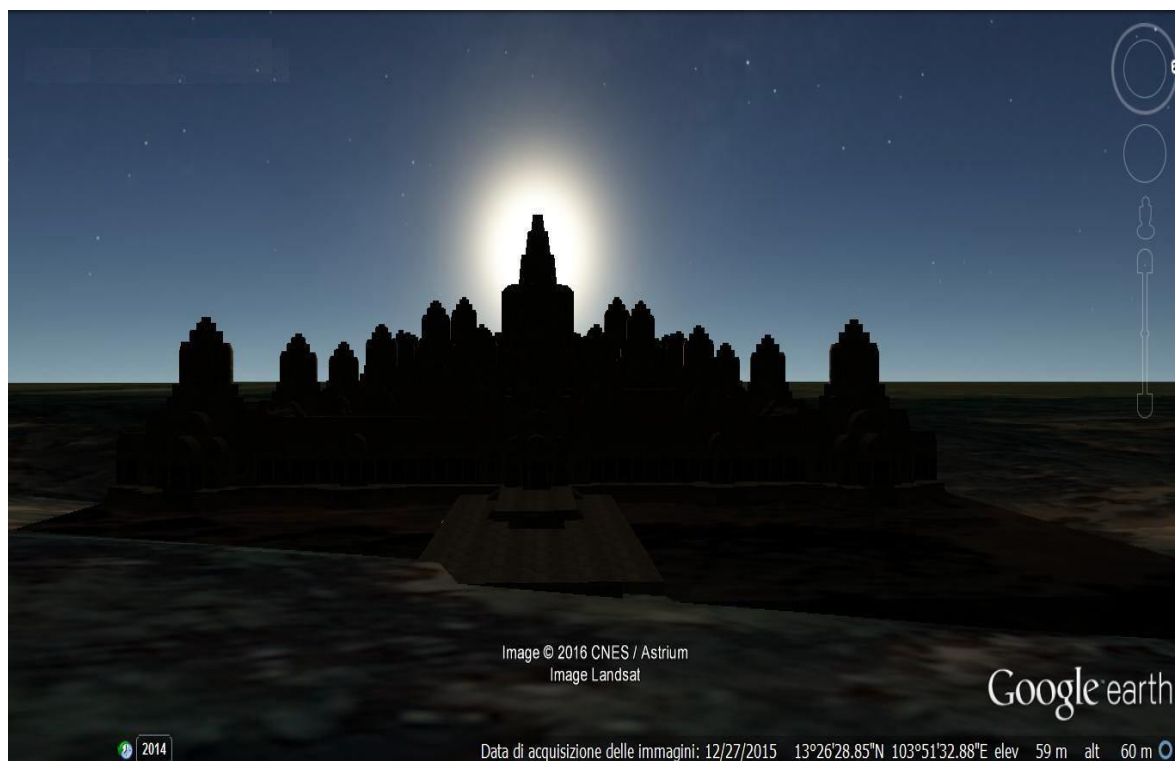



Fig. 3. Google Earth simulation of the setting of the sun behind the Bayon at the spring equinox.

The recent discovery that the zenith passages were probably also made visible inside the temples [Barnhart and Powell 2013] supports this interpretation, as well as the well-known general connection of the temple mountain architecture with the axis orthogonal to the earth's surface—the zenith-nadir axis to which, respectively, the temple and its image reflected in the waters in front of it explicitly allude. In fact, although the simplest way to observe the zenith passages is to look for the days in

which the shadow of a post vanishes at noon, another effective way is to use a straight vertical tube leading from the open sky into a dark chamber. If the tube is sufficiently long and narrow, the identification of the zenith passage will be accurate and, most important of all, the effect inside the room will be spectacular. This method, which was developed for example in pre-Columbian Mesoamerica, was very likely in use also in the Angkor temples. Today, their roofs are open, but the capstones are missing. Many such stones, however, are present in the rubble near the temples, and all have a hollow tube running down their axes. The holes allowed rain to hit the holy stone lingas located at the center of many chambers, and also allowed the sun passing overhead to light the same stones in spectacular hierophanies occurring twice a year (zenith passages at Angkor occur on April 26 and August 17).

The temples of the Angkor heartland were thus anchored in the cycle of the sun in two ways: the orientation, related to the equinoxes, and the vertical openings of their chambers, related to zenith passage. Yet another way to connect a temple with the zenith passages is, of course, by orienting the building to the sun rising or setting on these days, as occurs, for instance, for the world famous post-classic Maya pyramid of Chichen Itza, Yucatan. The azimuth of the rising sun on the zenith passages at Angkor is 76°, so apparently no Angkor temple was oriented in this way. Interestingly enough, however, the cardinal orientation appears to be a pattern, a rule only for the sacred space of Angkor, since —as we shall see in section 4— a state temple oriented to the sun rising on the days of the zenith passages actually exists outside the heartland.

Finally, a few temples remain for which the misalignment is too elevated to be attributed to considerations of visual effects. In particular, the temple exhibiting the worse misalignment with respect to due east, Banteay Kdei, was probably built long after the construction of the baray which lies in front of it and has the same alignment. Thus, the original rough orientation of the baray probably influenced that of the later temple for aesthetic reasons.

3. ASTRONOMICAL ALIGNMENTS BETWEEN MONUMENTS

The existence of scores of alignments between different monuments of Angkor was noticed many years ago by Paris 1941, who, however, offered no explanation for them. He divided his finds into cardinal (north-south or east-west) alignments, sosticial alignments, and "non-oriented" (meaning at least 3 points aligned, but not astronomically) alignments. In total, he proposed 28 cardinal alignments, 26 sosticial alignments, and 11 other alignments. In the present paper we are interested only in astronomical alignments, and therefore just cardinal and sosticial relationships will be

treated in what follows (Paris also proposed geometric relationships, e.g., temples standing at the vertexes of equilateral triangles, which will not be investigated here).

I have subjected all the proposed alignments to a check for accuracy. Here are the results:

1. A few are impossible to verify, as they refer to unnamed buildings, or ruins which are not recognizable.
2. A few others are not verified within the error permitted here, namely ½°.
3. All the remaining ones are "correct"; in other words, they have been verified as falling within the degree of accuracy adopted in this paper.

Among the alignments which are technically verified, the following possibilities may occur.

Alignments occurring by pure chance. These alignments arise owing to a selection effect. For example, a side of a temple complex is aligned with a corner of another complex and with the opposite side of yet another one, a connection which is far more likely to occur by chance than—say—to determine that the tops of three temples are all aligned on the same meridian. In particular, we must pay special attention when the temples are too far apart and do not allow a direct view. Indeed, because of the earth's roundness, intervisibility between sites (provided that the view is unobstructed) is severely limited. A good estimate is the following: the visibility of an object which is h meters high equals the square root of 13 h expressed in kilometers, so that, for instance, a person 2 meters tall sees on a flat horizon as far as ca. 5 kilometers. The summits of existing temples and/or provisional wooden structures could have been used to trace longer alignments, because when the object sighted is in itself high, the heights must be added to each other and therefore the distance to the horizon increases. However, in this case, too, lines longer than ca. 11-12 kilometers (corresponding to observation points located at heights ~10 meters) must be regarded as extremely suspicious.

Alignments occurring for technical reasons. The technical problem of tracing cardinally oriented lines is not an easy task. It does not suffice to determine the cardinal directions with a suitable accuracy, but it is also necessary to maintain the same accuracy during the construction of an enormous work of engineering such as the West Baray, which is 7.8 kilometers long. As a result, the lines already surveyed can be useful for a purely practical reason; for example, the top of a temple can be used as a survey point when laying out a new project. This procedure generates "true" alignments whose explanation is, however, purely functional.

Alignments occurring for symbolic reasons. These are possible when, for example, a certain project was connected to another through an astronomical event, or a certain king wanted to create a visual connection with the monument of a previous king. Such alignments of course fall into the specific sphere of interest of Archaeoastronomy.

3.1 Cardinal alignments

After careful scrutiny, only a certain number of the cardinal alignments proposed by Paris survived the test of the "selection effect." Further, claiming intentionality (according to point 3 above) is possible only if the chronology of the monuments in question is perfectly clear. For this reason, in what follows, only alignments including a well-attested chronology are reported, although I do not exclude the possible existence of a few others involving other buildings, whose chronology is not yet clear.

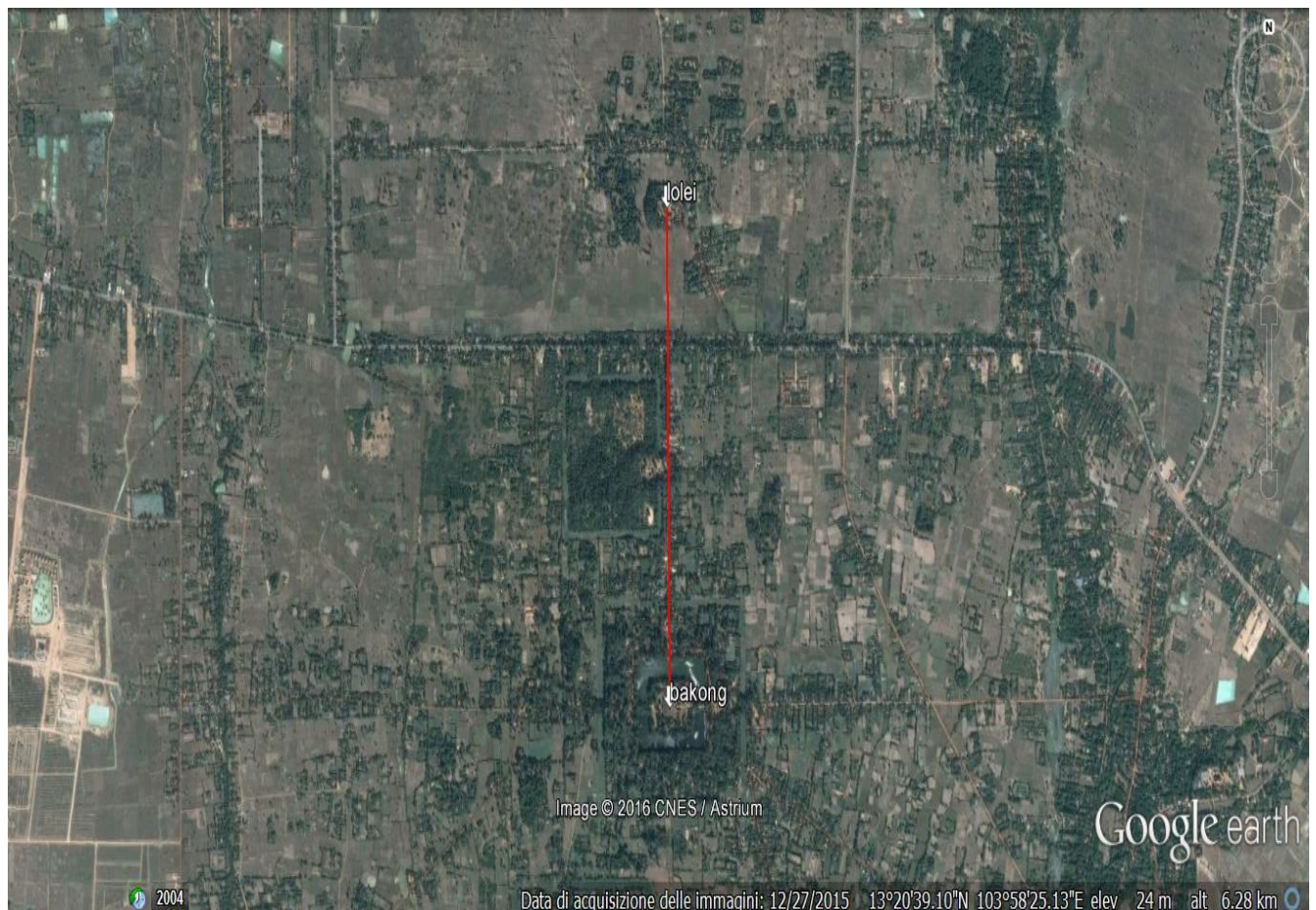



Fig. 4. The meridian line connecting Lolei with the Bakong. (Image courtesy Google Earth; drawings by the author.)

Our starting point is the first state temple built in Angkor-Roulos, the Bakong, built by Indravarman I. The temple was built along with a huge baray, the so-called Indrataka, which was located in such a way that the central axis lies on the same meridian (azimuth 180°) as the Bakong, located 1.8 kilometers to the south of the baray's center. Inside the already existing baray, Yasovarman I, (successor of Indravarman I) built the Lolei, an island temple, which was placed along the very same meridian (Fig. 4). In this way, a clearly intentional and symbolic alignment was created. The same king also "delimited" the sacred space of the future Angkor by building two temples (Phnom Krom and Phnom Bok) on the two small hills which overlook the area from the south and from the east respectively.

Around the beginning of the tenth century AD, Yasovarman I probably also initiated the construction of an even bigger baray, the East Baray, which, about 50 years later, was used by Rajendravarman II to create a symbolic configuration quite similar to that of the Lolei-Bakong. Indeed, he built his own state temple, Pre Rup, on the same meridian as the center of the East Baray, and about 1.3 kilometers to the south.

Moreover, he added an island temple (the East Mebon) inside the already existing baray. The position chosen for the East Mebon is on the "same" meridian as Pre Rup. The reason for the quotation marks is that the azimuth of this alignment is slightly off-center (178°), but this is coherent with the orientation of Pre Rup, which indeed is 88°. In other words, it is clear that East Mebon was intentionally placed along the direction orthogonal to the north side of Pre Rup. Interestingly, a very long line (about 7 kilometers) almost lying on the parallel (azimuth 269°) connects East Mebon with Phimeneakeas, whose original dating is not known, but which functioned as the state temple of the successor, Suryavarman I. The Victory Gate of Angkor Thom lies along the very same direction and its placement was almost certainly chosen for the very same reason (Fig. 5).

Finally, an interesting combination of alignments also repeats for the largest of the barays, the West Baray. Here the north side is on the same parallel as the state temple of its builder, the Baphuon, which lies at a distance of 2.2 kilometers from the corner, to the east. The prolongation of the south side to the east also lies on the same parallel (azimuth 89.5°) of a temple, the pre-existing Bat Chum, at some 7.6 kilometers from the south-east corner. Finally, at the center of the West Baray, the island temple West Mebon was constructed by Udayadityavarman II (it is not completely clear if the project of the baray was already initiated by his predecessor Suryavarman I). The West Mebon is connected with Pre Rup, since a "parallel" line (azimuth 89.5°) connects the two monuments (later, Ta Prohm was also to be built on this line). This line is very long (9.6

kilometers), but Pre Rup is 12 meters high. Clearly, since the Mebon is at the center of the baray, it is the baray itself that was planned by taking into account three reference points corresponding to the parallels of the sides and the mid line (Fig. 5).

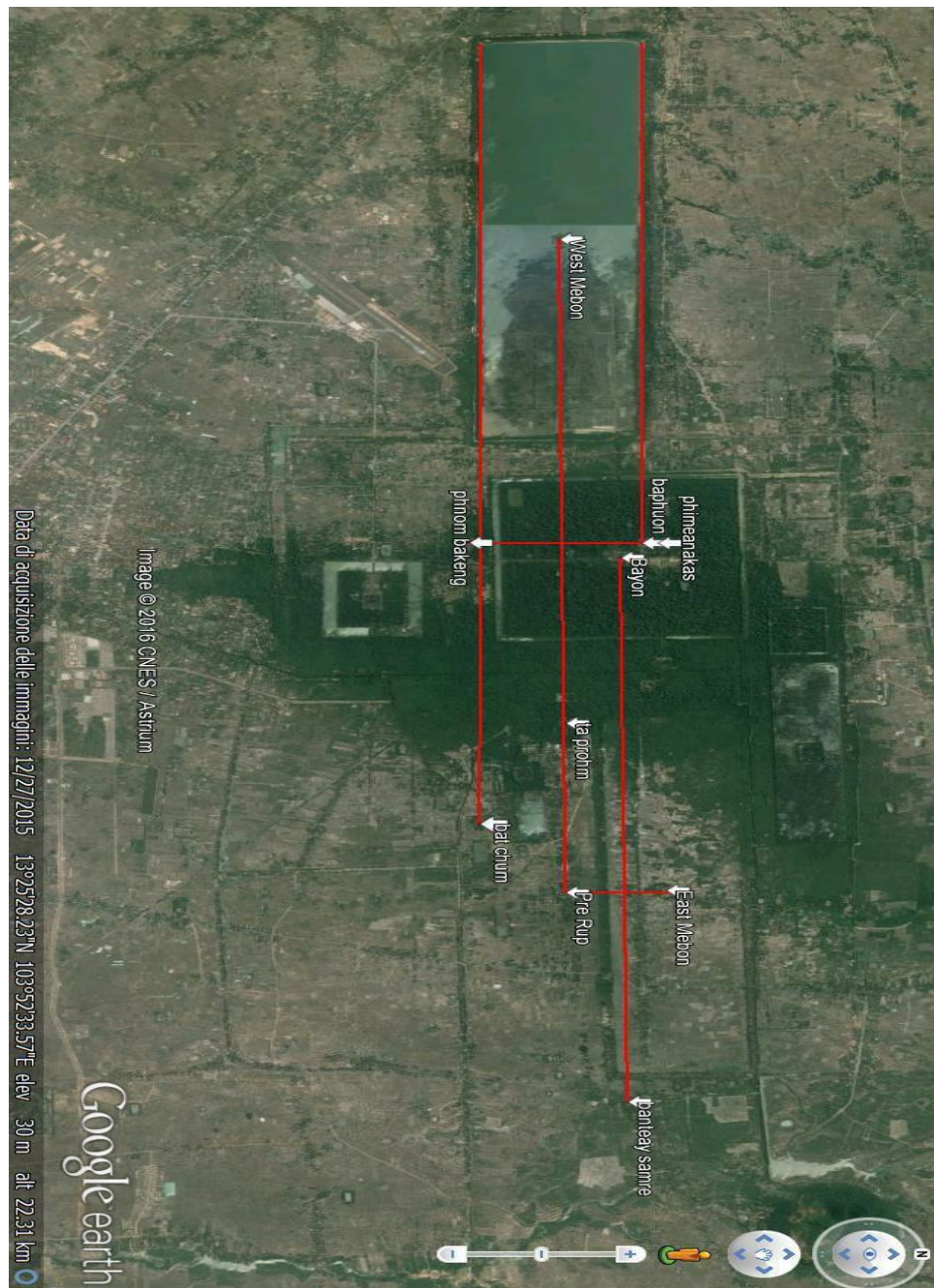



Fig. 5. Cardinally oriented alignments between main monuments at Angkor. Image courtesy Google Earth; drawings by the author.)

The reasons for the construction of the barays (whether they were functional, or ritualistic, or both) is a complex issue of Khmer archaeology as a whole and certainly cannot be addressed by the present author. I would only note here that the existence of the above-mentioned alignments, which are certainly intentional, reinforces

The presence of a ritual function, since it was the Khmer kings themselves who drew attention to these alignments by the construction of the island temples. Building such monuments was certainly no easy task. It is difficult to believe that these islands were rapidly assembled during the dry season (and it is unclear to what extent the barays were dry during this season), and it is even more difficult to believe that they were built within the water, so the barays must have been intentionally left in a dry state (by closing the inlet moats) for a suitable time. An exception is Neak Pean, a Mebon probably built together with the baray of the Preah Khan temple.

Their construction, therefore, certainly resulted from the direct order of the kings and was motivated by symbolic reasons. The existence of the above-described topographical relationships of the barays with the state temple of their builders allowed construction of the Mebons in accordance with existing lines of sight oriented cardinally. The idea of constructing the island temples appears therefore to implement in a quite spectacular and sophisticated way a dynastic continuity which the kings wanted to make explicit (Figs. 4,5). Creating interconnecting, visual relationships with monuments built by predecessors is a means of stating the continuity of power and the “divine” rights of rulership, according to a mechanism of development of the topography of the sacred space which is similar to those found in completely unrelated cultures [Aveni and Hartung 1988] for the Mayas or [Magli 2010] for Old Kingdom Egypt. The existing alignments between barays and temples were easily compatible with this aim.

From the point of view of “dynastic” cardinal alignments, there exist two other cases which appear to be non-casual. These are:

- A very precise (azimuth 89.5°) east-west line which connects the top of the Bayon with that of the preexisting temple Banteay Samrè. The axis runs along the “Gate of the Deaths” of Angkor Thom. It is very long (about 10.8 kilometers, as it crosses the whole of the East Baray) but the top of Banteay Samrè could be used as a survey point (Fig.4).
- A perfect (azimuth 180°) north-south line which connects the axis Phimeneakeas-Baphuon with the already existing Bakheng, located outside Angkor Thom at 2.5 kilometers (Fig. 4). The latter is built on a hilltop and there is little, if any, doubt that this alignment is intentional and therefore governed the longitudinal positioning of the Phimeanakas-Baphuon complex.

In both cases, it remains to be determined if these alignments were mere survey lines or, as seems likely, there were dynastic or other traditional reasons which motivated the kings to ask that these connections be incorporated into their state projects.

3.2 Solstitial alignments

At the latitude of Angkor (13° 26' N) the rising azimuths of the sun at the solstices are 65.5°/114.5°. As mentioned in [Paris 1941], the existence of as many as 26 solstitial alignments between monuments is claimed. Of these, two refer to the western entrance of Angkor Wat and will be discussed separately. I have subjected all the others to an accurate verification. A few refer to monuments which are not recognizable. My conclusion on all the others is that they are likely to be random. Indeed, most alignments refer to secondary monuments and to features which can easily arise from a selection of data. For instance, consider the (very precise indeed!) "solstitial alignment" which connects the northwest corner of the enclosure of Angkor Wat with the northeast corner of the east baray. Clearly such an alignment cannot have any symbolic significance, nor can we imagine an observer who uses these two corners for solar observation. Additionally, the alignment would have no practical utility for a surveyor and can therefore be definitively discarded. In practice, the only case of a solstitial alignment which survives this analysis is an alignment connecting the top of Phimeneakeas with the center of Neak Pean, built later. I cannot exclude intentionality, however, from Neak Pean—restricted only to the main monuments, without considering corners and other features but only the tops—one could trace at least some 20 other "alignments" with pre-existing temples.

Regarding Angkor Wat, Stencel, Gifford and Moron [Stencel et al. 1976] produced evidence of two supposed solstitial alignments previously found by Paris [Paris 1941]. For this reason, the notion that Angkor Wat was a sort of calendrical device became widespread. According to this theory, standing at the west gate (the same position from which the equinoctial hierophany can be seen), the sun at summer solstice rises in alignment with the temple located on the Phnom Bok hill some 17.5 km to the northeast, while at the winter solstice it rises in alignment with a temple called Kuk Bangro, about 5.5 km to the southeast.

Kuk Bangro is a small and damaged ruin which is almost invisible in satellite images, and I have doubts that the alignment was ever explicitly verified after Paris found it. Indeed, today the temple is—and in all probability has always been—invisible from Angkor Wat. Furthermore, its date of construction is not known, and so it could be later

than Angkor Wat. Unless a strict historical connection can be made between the two, the alignment is therefore very likely accidental.

Phnom Bok is a hill about 220 meters high, not particularly prominent from Angkor Wat. The temple on its summit had long existed when Angkor Wat was being planned, but, although the alignment is indeed verified, to attribute intentionality to it one would have to assume that the entire siting of Angkor Wat as a whole was largely governed by a desire to create this alignment, something for which there is no cultural basis whatsoever.

To summarize, the present analysis does not confirm the idea that any of the temples, Angkor Wat included, were used as "calendars in stone." In addition, there is no other evidence showing an interest for the extreme positions of the sun at the horizon by the builders of the Angkor monuments. In contrast, in view of the latitude and the climate of Angkor, their interest was rather focused on the equinoxes and the zenith passages, which were associated with the main climatic events, the transitions between the dry and wet seasons.

4. THE ORIENTATION OF THE TWO "PERIPHERAL" STATE TEMPLES

Two state temples were founded outside the Angkor heartland. The first, Koh Ker, was built by king Jayavarman IV in the mid tenth century AD. The site is characterized by a huge baray and by a 36-meter tall stepped pyramid, which is located on axis with the main temple, the Prasat Thom. The entire project exhibits a peculiar orientation at azimuth 76° (flat horizon), which is also shared by the short sides of the baray. Sometimes topographical reasons—such as the slight south-north slope of the terrain—have been advanced for this orientation [Uchida et al. 2014], but it is difficult to believe that the architects of such a huge and complex project might have let this fact alone cause them to rotate the whole design by 14°.

If we search for an astronomical interpretation, an answer is readily found. At the latitude of Koh Ker, azimuth 76° with flat horizon yields a declination of +13° 26'. The latitude of the site is 13° 44' so the main axis is quite precisely oriented to the rising sun on the days of the zenith passages, which of course occur when the sun has a declination equal to the latitude of the site. Therefore, when it was decided to change the site of the state temple, a change of orientation was also devised, creating for the first time an explicit connection of the axis with the sun rising on the days of the zenith passages (Fig. 6).

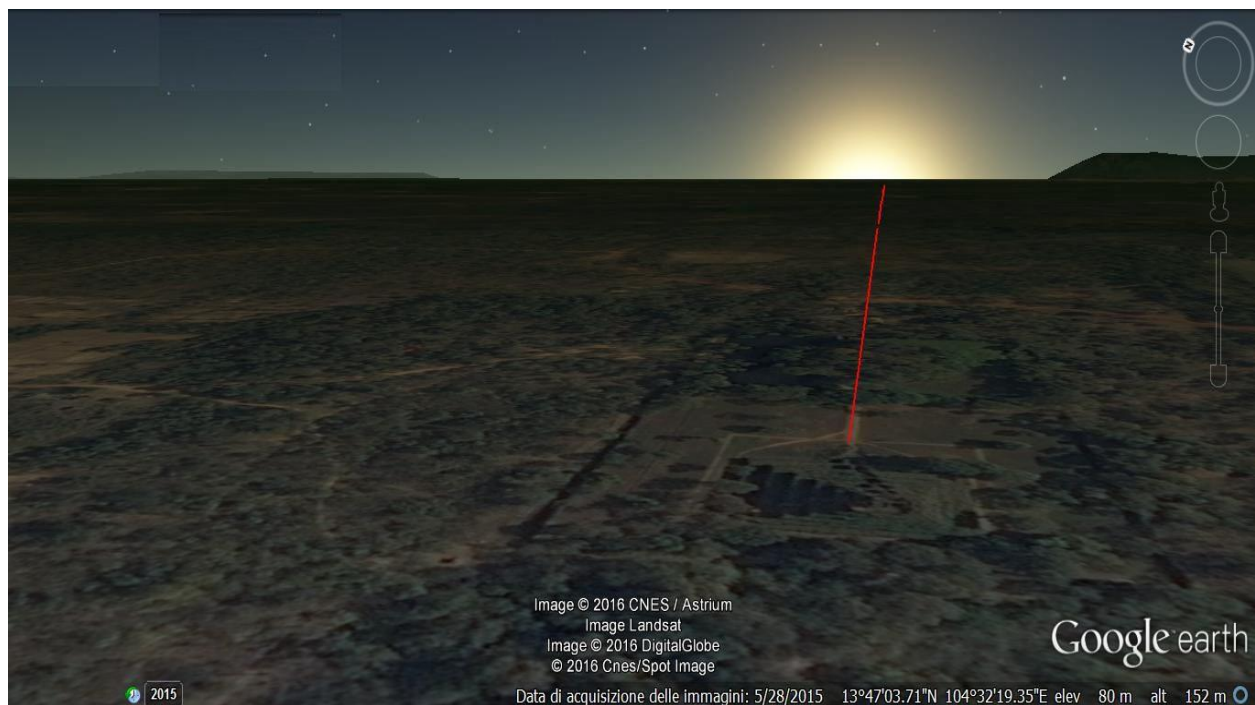



Fig. 6. Google Earth simulation of the sun rising in alignment with Kok Ker on the day of the first zenith passage. (Image courtesy Google Earth, drawings by the author.)

Even more clearly, orientation seems to have been a means of expressing a breakthrough when Preah Khan of Kompong Svay was constructed. It is a huge complex: the exterior perimeter of about 5 km per side makes it the largest Khmer enclosure ever built [Mauger 1939]. The site was connected to Angkor by a "royal" road rich in stone structures, such as bridges and "rest house" temples [Hendrickson 2010]. The building chronology is difficult to establish, since only one dated inscription (AD 1010) has been recovered. Accordingly, the site might have been founded in the eleventh century by king Suryavarman I. However, important architectural details point to the first half of the twelfth, during which Angkor Wat was also constructed. Curiously, other details recall the late twelfth to early thirteenth century, pointing to king Jayavarman VII, the builder of the Bayon. The religious dedication of the complex is equally difficult to identify owing to the interplay between Buddhist and Hindu elements.

The reasons leading to the construction of such a majestic architecture in such a remote place are still subject to debate. Since activities related to iron smelting were carried out in this area, it might have been an administrative center. However, the

presence of such an impressive, symbolic monument is difficult to explain, and a complete re-analysis of the archaeological setting together with a new mapping of the area is currently giving new insights into this problem [Hendrickson and Evans 2015]. As far as we are concerned, there is an aspect which has been noticed by all authors but never satisfactorily explained, namely the orientation which is anomalous if compared to the Angkor monuments. The complex is indeed clearly rotated to the north of east; Mauger gives 27° 24' north of east, but repeated measures on satellite images rather point to 29° north of east (azimuth 61°). It is this value which will be used here. The horizon is flat or nearly flat.

The hypothesis which has been proposed by some authors [Paris 1941] is that the complex might have been oriented to the rising sun at the summer solstice. However, the azimuth of the midsummer sun with a flat horizon in this region is 24° 30' north of east and therefore definitely far from the observed one (the variation of the obliquity of the ecliptic since AD 1100 is negligible, being about 6'). Of course, this does not necessarily mean that the temple was deliberately oriented to another astronomical phenomenon, but topographical reasons are difficult to imagine, and invoking "chance" is equally unsatisfactory, especially when taking into account the strict astronomical pattern which was the rule in Angkor's heartland. Furthermore, a very clear astronomical solution does exist, involving the moon. As is well known, the plane containing the earth and the moon's orbit is not the ecliptic, but forms with it an angle of 5° 9'. This has the consequence that the maximal and minimal declinations which the moon can attain are greater/lesser than those of the sun (which of course equal ± the obliquity of the ecliptic, 23° 30') by such an amount. This means that the moon at the horizon can attain azimuths lesser/greater than those of the sun at the solstices. Owing to a series of physical reasons, the extreme declinations (also called maximal standstills) are encountered only once every 18.6 years. Of particular interest is the full moon closest in time to the winter solstice, since it always attains a declination close to the maximal one in the year of the standstill, culminating very high in the sky and remaining in the sky almost the whole night.

Preah Khan of Kompong Svay is definitely oriented to the moon rising at the maximal northern standstill. Indeed, azimuth 61° with a flat horizon at this latitude yields a declination +28°.The true lunar declination at the site is actually slightly greater, 28° 14', because parallax must be taken into account. This value must be compared with the standstill declination of +28° 39' and again, as is the case of Koh Ker for the zenith passages, the match is impressive.

Of course, the role of the moon is quite relevant both in Hinduism—where it is identified with the God Chandra—and in Buddhism, since festivals and recurrences associated with Buddha's life are timed by the full moon. The choice of orientation to the extrema of the moon might thus have arisen from this and/or from other specific messages the builder wanted to associate with the temple. To be sure, further archaeological/historical research is needed to clarify this point. There is, however, a second issue related to astronomy which is worth discussing about Preah Khan of Kompong Svay. It is known that the temple is located on the same latitude as Angkor Wat. The accuracy of this coincidence is astonishing: the center of Angkor Wat is within 1' at the same latitude (13° 24') of the entrance to the inner enclosure of Preah Khan. The linear distance between Angkor Wat and Preah Khan of Kompong Svay is about 100 km, and therefore no visual connection is conceivable, and it is certainly possible to think that the connection occurs by chance. Indeed, to proceed along a "straight" line between non-intervisible positions is a thing which generally makes no sense at all since there are no straight lines on a curved surface (as pseudo-archaeologists in search of "leylines" usually forget). However, the special case of sites placed at the same latitude does make sense, because—although the parallel circle is not the shortest path between two points at the same latitude—the parallel in itself is, in principle, easy to determine using astronomy, and the Khmer architects certainly possessed the necessary skills. It is indeed possible to establish latitude by measuring the height of the celestial pole or the height of the sun at midday on fixed days, and this second method was clearly favored in the present case. Ancient people interested in the zenith passages of the sun appear to have also been interested in developing precise measures of latitude, as shown, for instance, by the archaeological site of Altavista in Central Mexico. However, even admitting intentionality, obtaining the accuracy exhibited by the Angkor-Preah Khan alignment must have been quite a daunting task, which clearly demands a sound historical explanation and a symbolic, rather than functional, interpretation for the site in connection with Angkor Wat.

5. DISCUSSION

The Angkor temples are masterpieces, built by knowledgeable architects who planned and erected them by taking into account a complex symbolical framework connected with the explicit representation of the ruler's power and of his relationships with the gods. The results of the present paper show that this framework included the sky, reflecting a world view in which the cycle of the sun and that of the dry and the wet seasons were tightly connected. Interest was mainly focused on the equinoxes and on the zenith passages, since both phenomena were implemented in the temples' architectural features and designs. In a few cases the temples by themselves were not

isolated units but were ideally linked with pre-existing monuments, constructing a series of visually recognizable dynastic lines, which are particularly evident in the case of the Mebons, the island temples. It is thus the hope of the present author that the research presented here can contribute to clarifying historical aspects of Khmer architecture and of the king's succession. In contrast, the same results show that claims about the existence of scores of inter-connecting, almost esoteric lines between the Angkor monuments must be viewed with caution, if not skepticism.

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APPENDIX

Table I. Main monuments of the Angkor area

	Orientation	Notes
Preah Ko	90 180	
Bakong	89 179	State temple
Baray Indratataka	90 179	
Lolei	90 180	Island temple
Phnom Bakheng	89.5 179	State temple
Baray East	88 178	
Phnom Krom	90 180	
Phnom Bok	90 179	

Table I. Main monuments of the Angkor area

	Orientation	Notes
Prasat Bei	90 180	
Baksei Chamkrong	90 180	
Prasat Kravan	90 179	
East Mebon	86 177	Island temple
Pre Rup	88.5 179	
Bat Chum	90 180	
Banteay Srey	90 180	Private construction
Phimeneakeas	89 179	Date and king unsure

Table I. Main monuments of the Angkor area

	Orientation	Notes
Ta Keo	89 180	
Chau Srei Vibol (Wat Trak)	89.5 179.5	Date and king unsure; difficult to measure
Baray West	90 180	
Baphuon	89 179	
West Mebon	90 180	Island temple
Angkor Wat	270.5 180	State temple; faces west
Banteay Samre	85 175	

Table I. Main monuments of the Angkor area

	Orientation	Notes
Wat Athvear	270 180	Faces west
Thommanon	Not measured	
Chau Say Tevoda	Not measured	
Beng Melea	89.5 179	
Ta Prohm	87.5 177.5	
Preah Khan	89 179	
Baray Preah Khan	89 178	
Neak Pean	88.5 178.5	Island temple

Table I. Main monuments of the Angkor area

	Orientation	Notes	
Bayon	89.5 179		
Banteay Kdei	85 175		
Baray Banteay Kdei	86 176		
Ta Som	88 178		
Krol Ko	87 177		
Banteay Prei	88 178		

Table II. State temples outside the Angkor heartland

	Orientation		
Preah Kahn of Compong Svay	60 150		
Kok Ker	76 164		
Baray	76 165		
Banteay chhmar	88 178		
Baray	88 178		

CHAPTER 9

SPIRITUALIZING ANCIENT KHMER LANDSCAPES

BY ASHLEY COWIE

BROUGHT TO YOU HERE BY DR UDAY DOKRAS

BACK STORY: In the winter of 2014 I spent a month in Cambodia and Thailand, on what began as a photography trip ended up as a three year study of the mythology, astronomy and cosmology Khmer Empire and how these disciplines were expressed in architecture. The first four articles in this series greatly explored how Hindu creation myths gave rise to religious symbolism and an architectural style associated with mythological and cosmic order, which is reflected in the measurements, orientations and alignments of the temples and religious complexes.

In part and in whole the Khmer temples are a 'near' perfect expression of greater cosmic order, the passage of time, the ever moving rays of the sun and ultimately their influence on agriculture - therefore survival. The last article brushed on Khmer sacred geography, which followed the topographical and geodetic measuring rules and principals defined by earlier Vedic Indian Priests in the Sulbasutras - (Codes of the ropes). Vedic geometers expressed geographic, astronomical, mythological and spiritual concepts with pythagorean triangles, for example, lunar and solar distances are encapsulated within a pythagorean triangle which has sides measuring 40, 41 and 9 equal units, as illustrated in the Figure 1.
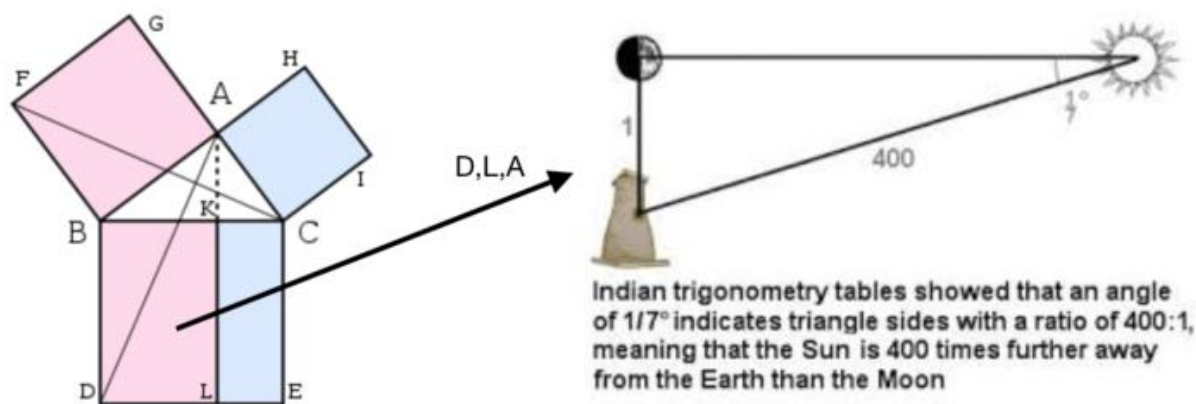
Figure 1. Pythagorean triangle expressing astronomical concept.

Pythagorean triangles are not only measurable in the Khmer temples but also within the greater landscape. In the last article I took the astronomical data of professors Stencel, Gifford and Moron and married it with the modern work of Professor Giulio Magli, who in 2016 published a concise paper entitled *Archaeoastronomy in the Khmer Heartland* . Using Google Earth and GIS data, with a reconstructed ancient Khmer sky generated on Stellarium, Magli set out to:

investigate the relationships of astronomy with orientation and topography in a systematic fashion, following the methods of modern Archaeoastronomy and strictly keeping at a bay vague and/or esoteric proposals put forward by many authors in the past.

Magli rediscovered the primary landscape alignments were first laid out by Indravarman I (877-889), who famously built the Bakong temple. Magli pointed out that his successor, Yasovarman I (889-910 AD) later built 'the Lolei' island temple, precisely at the centre of the existing Baray, directly upon the Bakong temple meridian.

Figure 2. The Lolei' island temple meridian.

This meridian was clearly a symbolic-sacred-geographic feature with a rich associated cosmology, where the divine plan of one King was expanded upon by another in his linage. This is a great example of 'symbolic' sacred geometry, but on deeper-level the high priests also integrated astronomical alignments into their sacred landscape plans. Some of the principal astronomical considerations in the Khmer landscape were first retraced in the mid-70s by researchers Stencel, Gifford and Moron, who in their 1976 paper *Astronomy and Cosmology at Angkor Wat* observed that because Angkor Wat is located on latitude 13° 26' N, the sun's rising azimuth (angle) on the June and December solstices is 65.5° and 114.5°, respectively. Moron explained:

a key solstice alignment untied the temple at Angkor Wat with the 220 meter high Phnom Bok hill, 14 kilometres to the north east.

Magli's also commented on how Khmer King Suryavarman II in the early 12th century, located Angkor Wat so that this solstice effect/show, occurred with Phnom Bok Hill. If he had located Angkor Wat even 300 meters north or south this solar effect wouldn't 'work', as illustrated in Figure 3.

Figure 3. Angkor Wat to Phnom Bok Hill-top temple june solstice alignment.

This map illustrates the June solstice sunrise alignment between Angkor Wat and Phnom Bok hill. This is the extent of the current academic work on this subject and from here on in we go off-piste, adhering of course, to the principals of archaeoastronomy defined by Magli, Stencel, Gifford and Moron. My new research, as presented in this article, begins two centuries before Angkor Wat was built when the original ground-plans for the sacred Khmer landscape were first being measured out and plotted by Yasovarman I who is recorded as having 'set his priests to work 'measuring out' a sacred plan for 'future' temples, monuments and shrines'.

THE LOST KHMER MERIDIAN

At the end of the 9th century King Yasovarman I moved his ancient capital city from Hariharalaya further north to Yashodharapura where all of the famous religious monuments were 'later' built, e.g. Angkor Wat. At the very heart of his new kingdom were two hills, Phnom Bok and Phnom Dei, which were fortunately were aligned north to south. Yasovarman I built a temple upon each hill, separated by 14.5 kilometres, and in doing so he continued the kingly tradition of establishing a prime meridian to mark his kingship and authority over his dominion.

His new zero-line of longitude would become an immovable anchor in an otherwise wild and changing landscape, from which all astronomical and building measurements would be taken to and from, and upon and around which cosmologies and spiritual constructs would be built.

Figure 4. Phnom Bok and Phnom Dei hill-top temples:

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Figure 4. Phnom Bok and Phnom Dei hill-top temples:

King Yasovarman I's two hill-top temples were located upon the same meridian with an accuracy so fine, that if one were to stand at either temple and hold a hair at arms length, along the imaginary meridian, the second temple would be hidden by that hair. Close your eyes, its way easier! This ancient meridian linking Yasovarman I's two hill-top temples was though of as a spiritual spine in the Khmer Empire for the next 200 years.

I propose that most if not *all* Khmer temples were located on primary measurements, to and from, this old prime meridian - marked by two hill-top temples. Proving my theory, Dr. Giulio proved that a primary consideration for the location of Angkor Wat was so that worshipers could *'watch the summer solstice sun rising from behind Phnom Bok hill*', as shown in Figure 1. I asked the question:

Might the Phnom Dei hill-top temple, 14.5 kilometres to the north, also have served as a astronomical foresight on the summer solstice sunrise? From, a yet unidentified temple?"

RUNNING KHMER DYNASTIC MERIDIANS

The answer to this question was yes! Albeit it has taken 3 years for me to formulate *that* question, the answer was established as simply as drawing Angkor Wat's meridian 14.5 kilometres north, on Google maps. From this newly identified location, identified in Figure 5, a viewer would watch the summer solstice sunrise from behind the Phnom Dei hill-top temple.

View fullsize

Figure 5. Angkor Wat meridian.

14.5 km north on Angkor Wat's meridian I identified the south west corner of a massive rectangular baray (reservoir) surrounded a series of clearly square forms rising through the trees, in a landscape, which if not engineered by man should have been be a chaotic scribble.

View fullsize

Figure 6: New location identified 14.5 kilometres north of Angkor Wat.

I had obviously located a temple, but it was well off the tourist trail and no names, photos or road signs appeared on any mapping programs. I immediately wrote an email to a temple guide I know in Siem Reap and sent him the coordinates of this baray, precisely 14.5 kilometres north of Angkor Wat, mirroring the length of the meridian between the two hill top temples. I was soon informed my landscape alignment had identified a temple-hospital complex- Prasat Tonle Sngout, next to Phumĭ Ângkôr Krau in Khétt, near Angkor Thom's North Gate.

View fullsize

Figure 7: Prasat Tonle Sngout corridors between dimensions of Hindu space and time.///Figure 8: : Prasat Tonle Sngout contented heads with knowing faces.

This temple was built by King Jayavarman VII who reigned in c.1181–1218 and established the new capital, Angkor Thom. Historians generally consider him as the most powerful Khmer monarch of all time and following the tradition of his father, Jayavarman VII was a Mahayana Buddhist, thus, his life-goal was to 'alleviate the suffering of his people' and he greatly attempted to turn his kingdom into an 'earthly paradise'. This is evident in the 10th Stanza of the *Say Fong* inscription which praises the 'perfection of the king' and tells us of his sacred geographic plans.

Seeing that his kingdom, which his 'wisdom had transformed into heaven on earth', was oppressed by death, he produced a divine elixir that brought immortality to all.

Located 14.5 meters north of Angkor Wat on the same line of longitude, observers standing at the west side of the Prasat Tonle Sngout baray, on the morning of the summer solstice, would

watch the sun rising behind Phnom Dei hill-top temple, as illustrated in Figure 8, with the summer solstice hill-top alignment detailed in orange. To summarise this sacred landscape plan in words, would take at least another 3000, but it is explained in its fullest in Figure 10 where the 9th century prime meridian, marked by the two hill top temples - Phnom Dei and Phnom Bok - later determined the locations for Angkor Wat and Prasat Sngout temples, built in the 12th century.

Figure 9: June solstice alignment to Phnom Dei Hill and temple.
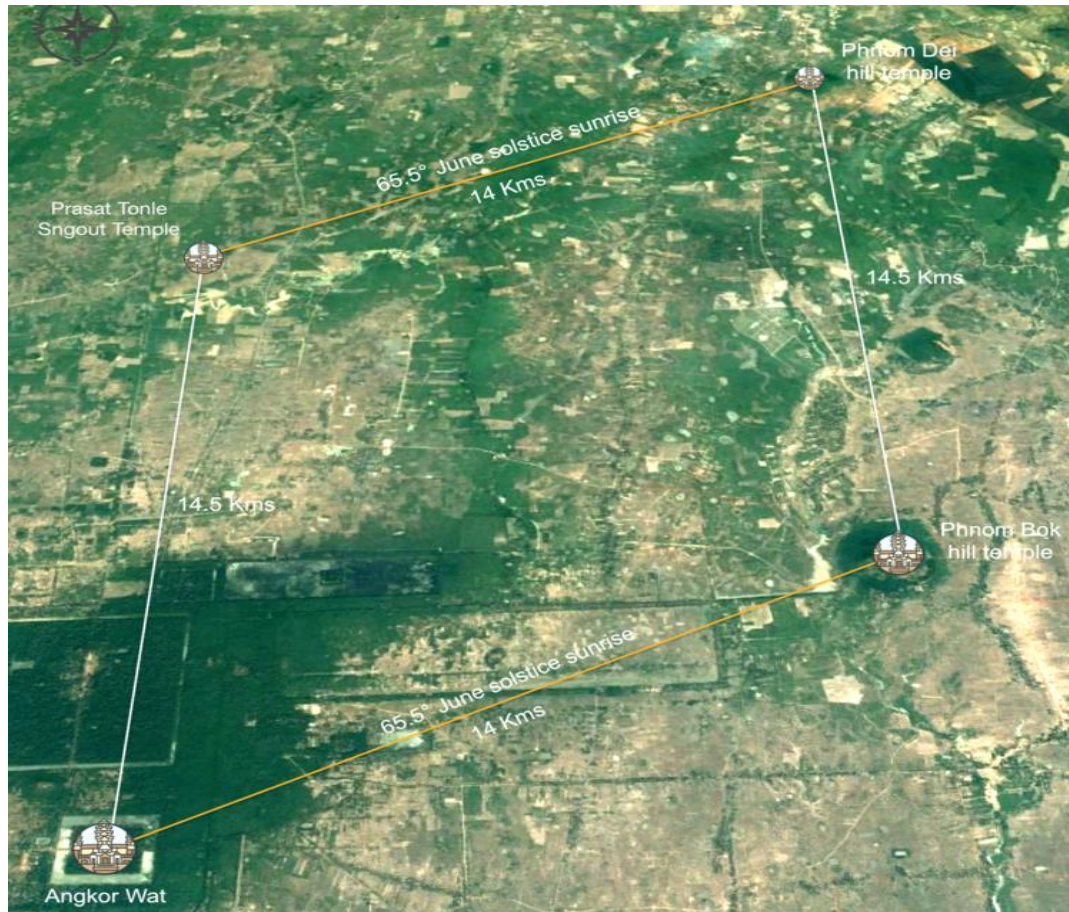
Figure 10: 9th - 12th century sacred Khmer landscape format based on the two hills.
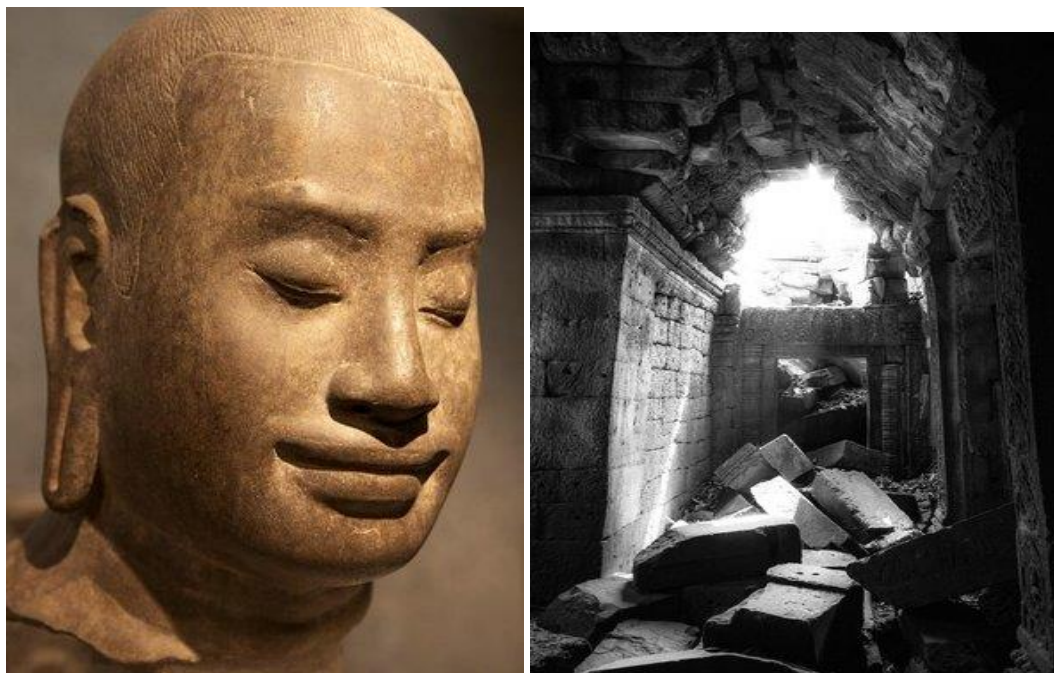
Figure 11. King Jayavarman VII reigned in c.1181–1218//Figure 12: Bayan temple.

Taking a few moments to meditate upon this sacred geographic format will reveal it as a thing of simplicity, not lacking in beauty - an expression of the mind of King Jayavarman VII. His two 12th century temples were situated so that on the summer solstice the sun was seen rising from behind his ancestor Yasovarman I's two 9th century hill-top temples. This is raw and pure Hindu sacred geography.

For over 30 years Jayavarman VII personally project managed a massive construction program of public works and monuments, following the sacred landscape delineated by his predecessors. Combining religious construction with public works, in Angkor Thom for example, he created a network of provincial temples, moat systems and enormous barays (reservoirs) which fed the national irrigation system. His reign was marked by the centralisation of the state and he was a social controller on a grand scale - a city maker. In the first phase of his building program he famously built ‘102 hospitals’ and rest houses along the roads and afterwards built a pair of temples in honour of his parents: Preah Khan for his father and in 1186, he dedicated Ta Prohm ("Ancestor Brahma" or " Eye of Brahma") to his mother.

He finally constructed his own temple-mountain at Bayon, a multi-towered, multi-faceted temple blending Buddhist and Hindu cosmology and iconography, and developed the city of Angkor Thom (Indrapattha) around it. At this temple an inscription indicates that this massive temple at one time had ’80,000 people’ assigned to its upkeep, including 18 high priests and 615 female dancers.

If what I had discovered was indeed evidence of Yasovarman I's 9th century sacred landscape plan, still being built upon in the 12th century, I should then be able to apply this system in a predictive manner and locate more temples? And I did. In the third article I explained that the two equinoxes were the most mportant/sacred holy days in the Khmer agricultural, civic and ritual calendars. Therefore, almost all of their temples were aligned east to west, so that the first rays of the equinoctial sun enlightened the shrines, altars, lingams and yonis.

Understanding how these two sacred hills were used to locate temples so that June solstice sun rise was seen behind these two hills, what about the equinox sunrises? It would be expected that the two hills would have served as foresights on these most sacred dates? And they do. Standing on Phnom Dei hill-top temple, looking 2300 meters directly west - along the equinox alignment - the skyline is broken with another massive temple complex - Banteay Srei Island Temple.

Figure 13: Banteay Srei Temple alignment with Phnom Dei hill-top temple.

Consecrated on 22 April AD 967, Banteay Srei (Citadel of Women) is a 10th-century temple originally called Tribhuvanamaheśvara (Great Lord of the Threefold World), the triune manifestation of Shiva. Built largely of red sandstone, a medium that enabled the elaborate decorative carvings which are still observable today, the buildings themselves are like miniature temples compared to the standards of Angkorian construction further south. where the bulk of the temples are located.

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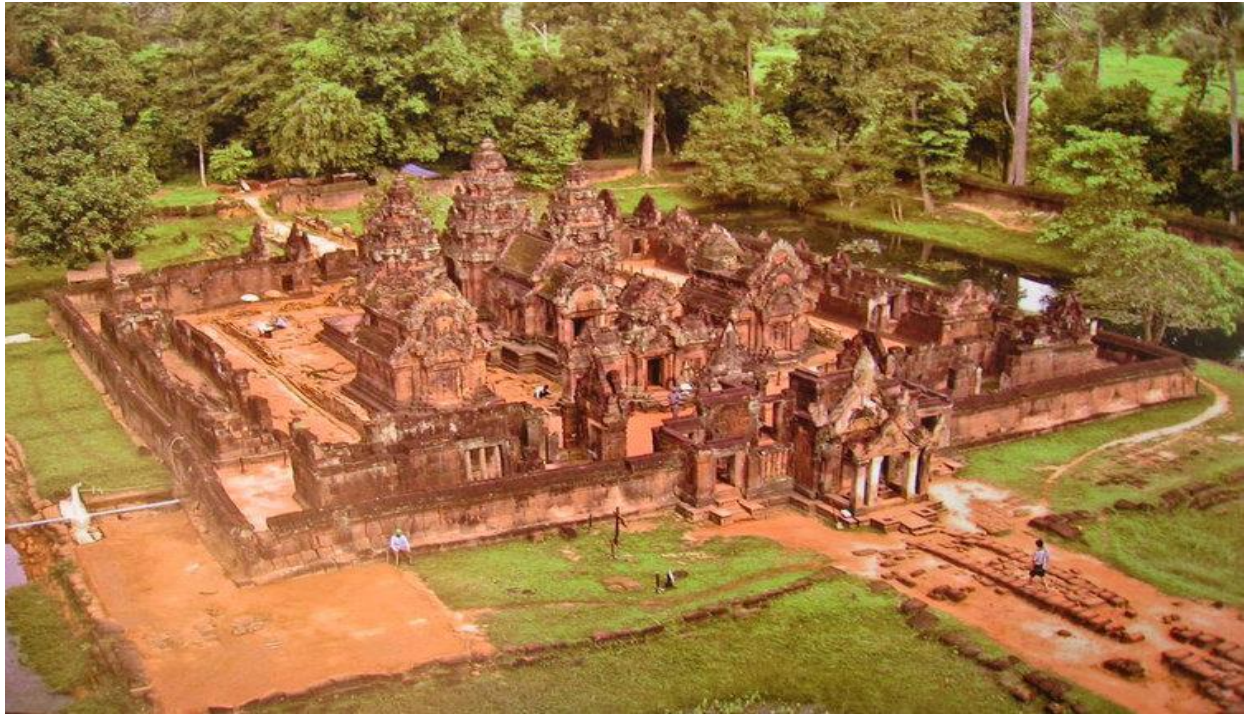
Figure 14: Banteay Srei miniature temple.

I arrived at this temple at sunrise and watched the light spread down three concentric rectangular enclosures - all constructed on the equinoctial east–west axis. A 67 m causeway, on this axis, leads from a grand outer gate to the third, or outermost, of the three enclosures. Inside, an inner enclosure contains the sanctuary which consists of an entrance chamber and three further towers, as well as two libraries. The temple buildings are divided along the central east–west axis with those located 'south' of the axis being devoted to Shiva, and those north of the axis are devoted to Vishnu.

Figure 15: Inner Enclosure of Banteay Srei.

The causeway connects the gopura (entrance tower) with the third, inner enclosure. North and south of this causeway are galleries each with a north–south orientation. These observations determine that Banteay Srei Island temple was aligned so that worshipers at its centre viewed the vernal and autumnal equinox sun rising from behind the natural notch in Phnom Dei hill.
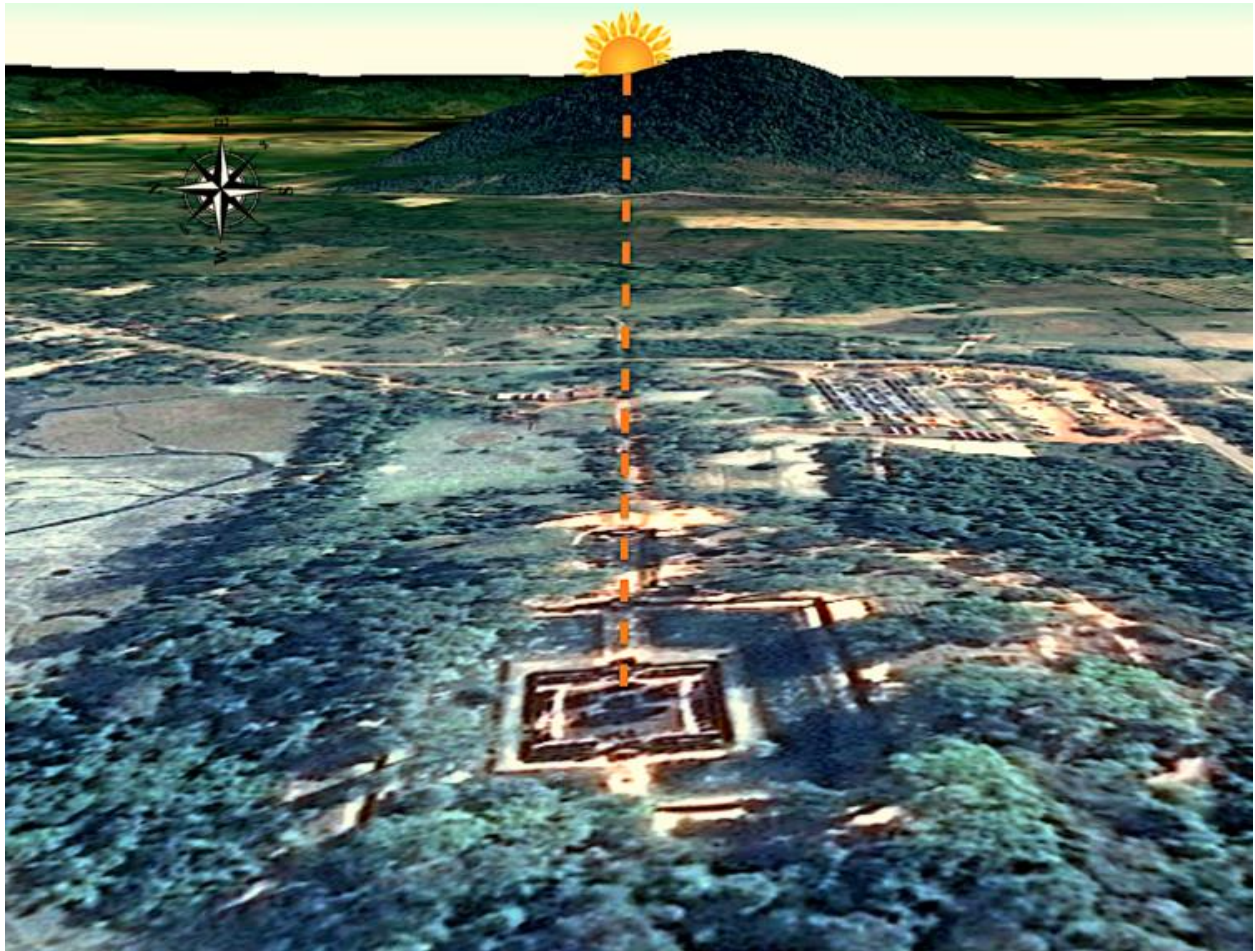
Figure 16: Banteay Srei equinox alignment with Phnom Dei hill.

In conclusion, just as predicted, a third 12th century temple, Banteay Srei Island temple, aligns to the 9th century meridian marked by Phnom Dei hill. This temple was specifically located so that the hill becomes a foresight on the two equinox sunrises, when the 'first light' was seen emanating from a notch in the hilltop and beaming down the causeway, where it exploded upon the artefacts and offerings located at the centres of the temples and shrines.

The next level of this sacred landscape matrix is achieved when we extend an equinox alignment west of the Phnom Bok hill-top temple. Not only does this line define the north western most corner in the Angkor Thom complex, but it precisely locates the centre of the massive Banteay Sra temple, 31 kilometres (19.25 miles) to the west.

Blog RSS

Figure 17. Bantaey Sra temple is located on the east-west equinox alignment with Phnom Bok Hill.

Figure 18: The alignment form Phnom Bok hill is accurate to less than a meter of accuracy over over 31 kilometers.

Figure 19: Facing east the temple no lomger stands.

Finding Banteay Sra temple located on the equinoctial line from Phnom Bok hill-top temple, I had now completed drawing out a triangle in the landscape, the sides of which were formed with the ancient prime meridian and the June solstice and equinox alignments. A triangle of the most sacred nature to a Hindu priest, built on two hills and two astronomical measurements.

View fullsize

What you are looking at is the manifestation of the ancient Khmer Empire's underlying scared format constructed around Phnom Bok and Phnom Dei hill-top temples. This is a thing of beauty in its own right, but what if I told you that not only did this triangle embrace the prime meridian, solstice and equinox alignments, but when its three sides are measured it is found to be a Pythagorean 9,40,41 triangle. This type of triangle was, shown at the beginning of the article as an example of how ancient Vedic priests used Pythagorean triangles to represent astronomical concepts in sacred geometry in architecture and here in sacred geography.

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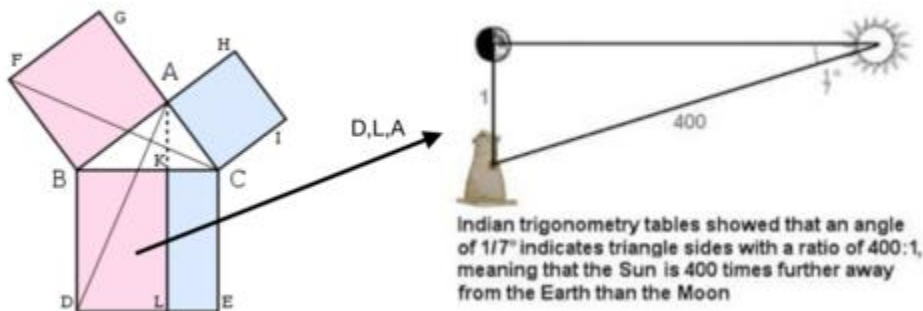
CONCLUSIONS

Angkor Wat and the Khmer temples are often called functioning *'calendars in stone'.* This is of course true, but we must come beyond the dimension of time and reconsider the deeper meaning of the temples locations, in the three earthly dimensions of 'space'. The 12th century builders located Angkor Wat and Prasat Tonle Sngout temple so that they aligned with the two hills, Phnom Bok and Phnom Dei, where in the minutes following the equinox sunrise, the suns blazing corona was seen perched atop the hill-top temples which would have been perceived as receiving powerful solar *"creation energy"* which was thought as having been pumped downwards from the divine - first into the hill-top temples, along the landscape alignments and into the 12th century temples, through the king, and outwards across the entire Khmer Empire.

This solar sunrise dynamic with the two sacred hills is repeated on the equinoxes when the sunrise is observed from Banteay Srei and Banteay Sra temples, both located directly to the west of the two sacred hills. This is a beautiful expression of spiritual and mythological concepts being fused with astronomy and geography - then expressed in the locations of temples. Albeit Angkor Wat is one of the most written about ancient buildings on our planet, little attention has been given to the underlying alignments which synthesise the temple with the surrounding landscape. I hope this article will provoke further research into this field of study.

ABOUT THE AUTHOR DR UDAY DOKRAS

GEM & RUDRAKSHA VAASTU

Giving Design to the Lord's Creation

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About the Author

The author has worked for 30 years in the human resources arena in India and abroad. He was Group Vice -President of MZI Group in New Delhi and has anchored Human Relations in Go Air and Hotel Holiday Inn;was General Manager-Health Human Resources at the Lata Mangeshkar Hospital amd Medical college. Is currently Consultant to Gorewada International Zoo,Nagpur and visiting Faculty at the Central Institute of Business Management and Research, Nagpur.

In Sweden he anchored HR in Stadbolaget RENIA, SSSB and advisor to a multi millionaire. He has studied in Nagpur, India where he obtained degrees of Bachelor of Science, Bachelor of Arts(Managerial Economics) and Bachelor of Laws. He has done his Graduate Studies in labour laws from Canada at the Queen's University, Kingston; a MBA from USA, and Doctorate from Stockholm University, Sweden. Apart from that he has done a Management Training Program in Singapore.

A scholar of the Swedish Institute, he has been an Edvard Cassel Fund and Wineroth Fund Awardee.A scholar for the Swedish Institute for 5 years.

In 1984 he was involved with the Comparative Labour Law Project of the University of

California, Los Angeles, U.S.A. He was also visiting lecturer there. In 1985 he was invited by the President of Seychelles to do a study of the efficacy of the labour laws of Seychelles.

Author of a book on a Swedish human resource law, his brief life sketch is part of the English study text book of 7 th Class Students in Sweden **- "Studying English. SPOTLIGHT 7**"- and 8th Class students in Iceland - **"SPOTLIGHT 8- Lausnir."**

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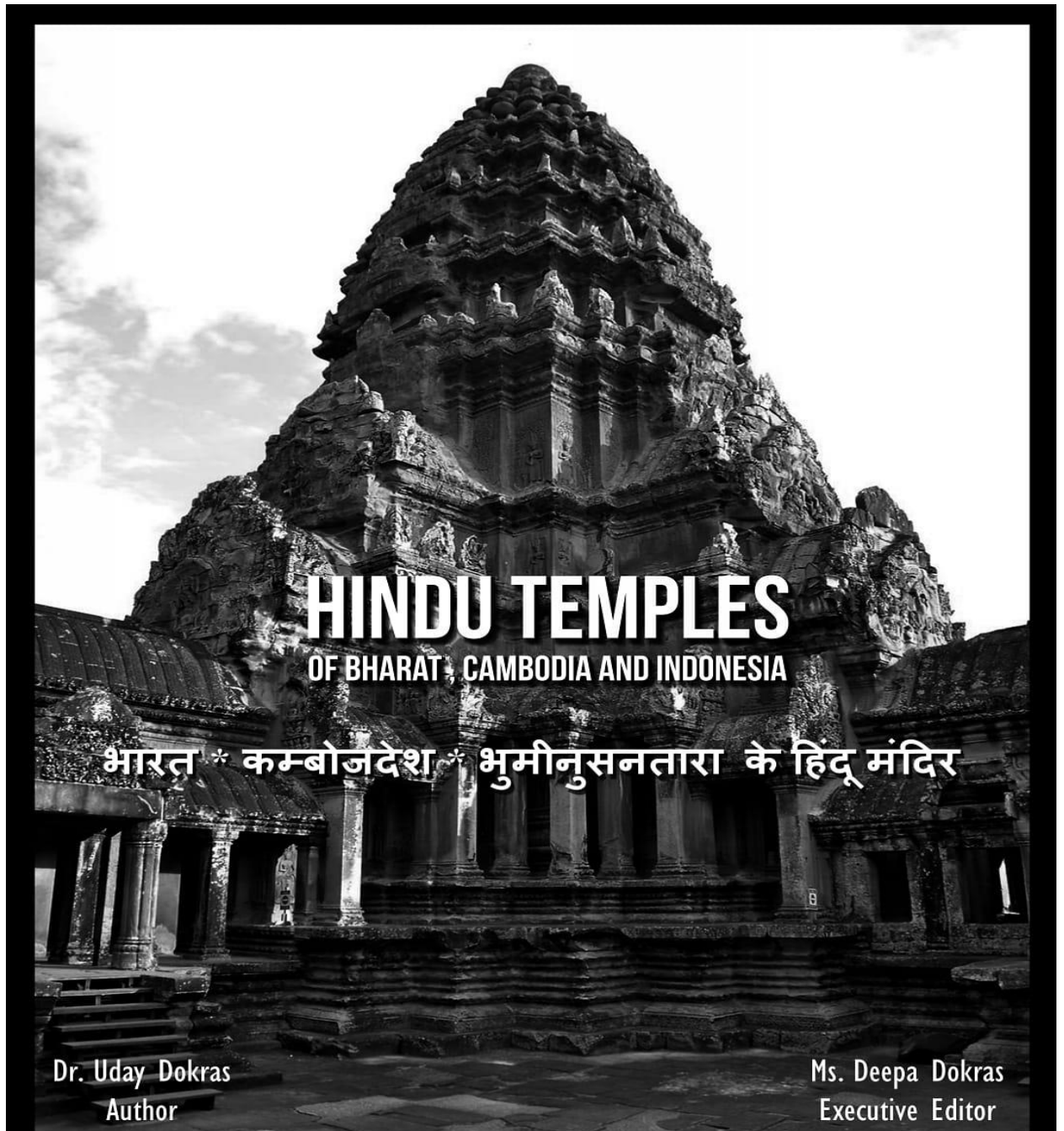
Authors-DR Uday DOKRAS

Reviews of the Book PROJECT HUMAN RESOURCE MANAGEMENT

The authors highlight the benefits of paying attention to human resources and offer success and failure factors guideline for a variety of potential practitioners and students in global project marketplace.
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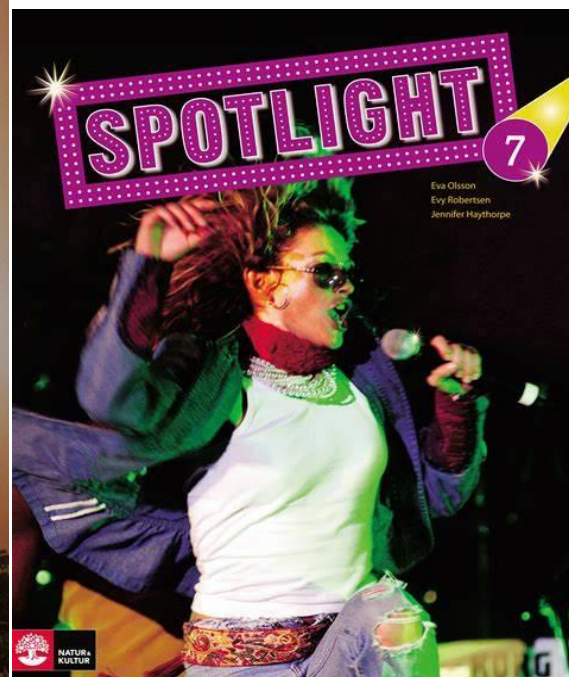
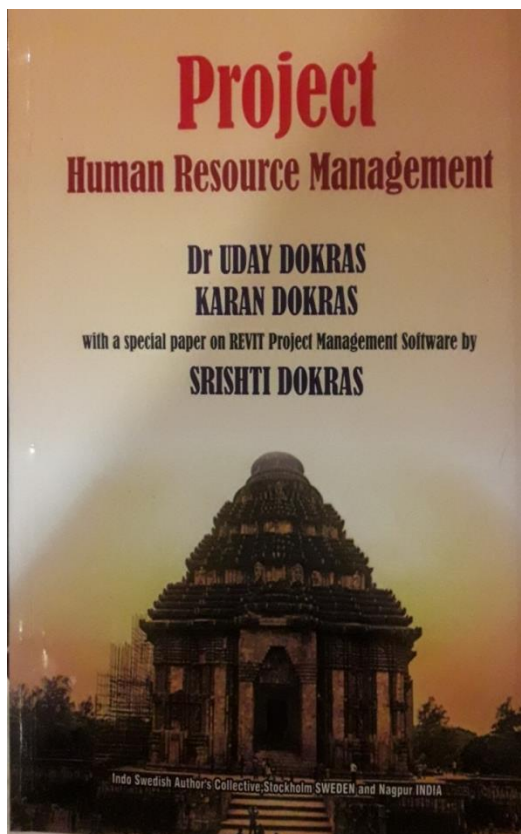

Iceland Sweden both countries use the English Text SPOTLIGHT-one of the lessons in which is about Dr Uday Dokras

Prof. S.Deshpande,President of the Indian Instituye of Architects, New Delhi INDIA releasing the book of Dr Dokras HINDU TEMPLES on the web in CARONA gimes(May 2010)

Book on 'Theme Park HR' launched

■ Staff Reporter

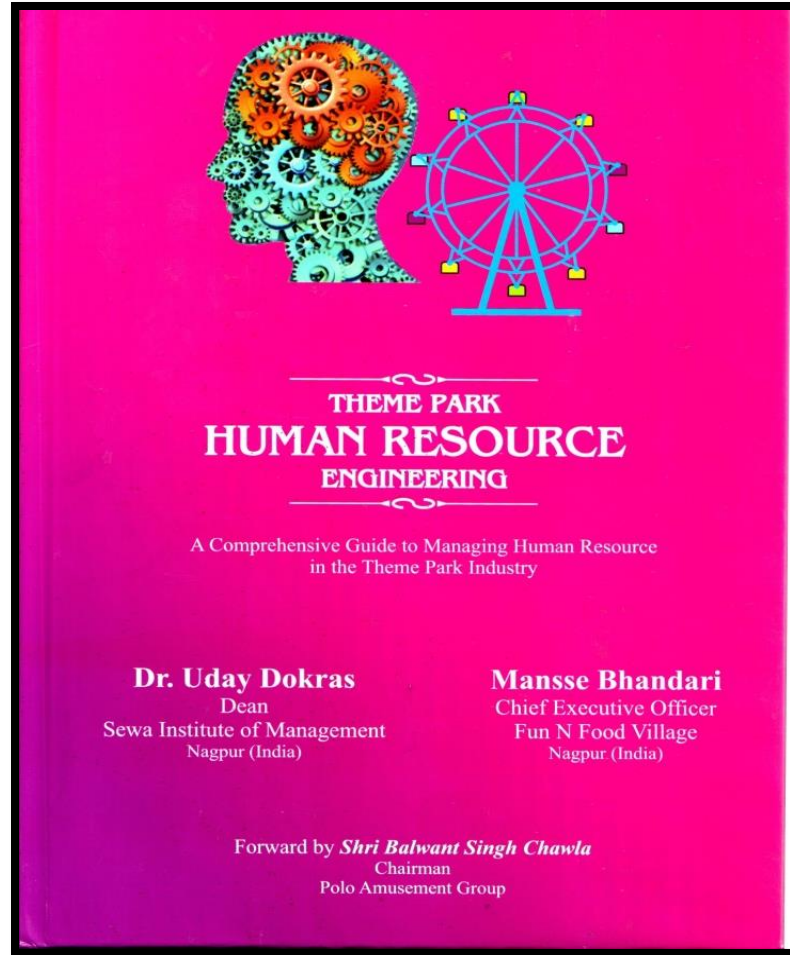
THE book 'Theme Park Human Resourse Engineering' written by authors Dr Uday Dokras and Mansse Bhandari recently.

Speaking on the occasion Balwant Chawla, Chairman, The Polo Amusement Group, New Delhi And Tashkent, Uzbekisthan the chief guest, complemented the writers for choosing such an unique subject and writing this one of a kind book. First in the world on this subject.

This book is a comprehensive guide to manage employees working in all entertainment related businesses such as Malls, Theatres, Multi-plexes, amusement and Theme parks,Casinos,Malls,family entertainment centers etc.

In 11 chapters the authors deal with recruitment, training, discipline, bringing about efficiency and value add to the business using human resource interventions. This is the first book of its kind in the world and is the first time the subject has been tackled. The authors Mansse Bhandari and Dr Uday Dokras have been associated in the Human Resource field for 30 years. Ms. Bhandai is the CEO of Fun 'N' Food Village, Nagpur and was head of Human Resource at the Iceland Park in Dubai for 5 years. Dr Uday Dokras has written 2 other books on HR and was Head HR of GO Airlines in Mumbai. He has been the GM of Hotel Holiday Inn, Mumbai.

This book has been published by the Sewa Institute of Management, a new Institute that has taken up the challenge of introducing the Theme Park Management Science to the world.

Dr Uday Dokras and Mansse Bhandari.

City author launches book on web from home

Staff Reporter

RENOWNED author Dr Uday Dokras, a prolific writer has penned a 450 page book on the Hindu Temples of Bharat and Cambodia. It is his eighth book and his co-author for this book is Deepa Dokras, a noted historian. He launched the book directly onto the worldwide web from home.

The book deals with how Hinduism reached the far East and the architecture of Hindu temples there and here in our country.

There is very little research done on this subject, claims Dr Uday and Deepa Dokras. Both described the technical aspects of building these temples as well as focuses in detail on temples of Nagpur and others in Cambodia and India.

Jageniapointed out. visiting www.hotelcloud.nic.in ly as possible.

Dr Uday Dokras pens a trilogy on Hinduism

- This is 17th book by Dr Uday Dokras and 6th by his daughter

Staff Reporter

INDOLOGISTS and Hindulogists, Dr Uday Dokras and his daughter Srishti Dokras, an Architect have just released their trilogy on Hindu temples of South-East Asia and Indo China, titled 'Devraja' on the Net.

This is the 17th book by Dr Dokras and sixth by Srishti Dokras. Between the two, they have written 160 research papers on temple construction, Hindu religion in far away nations, design and management available for all to read on researchgate.net.

Spanning 1,200 pages in 3 volumes, the tales are centered on Devraja, the God King of many of these countries who embraced Hinduism and built some of the biggest and most majestic temple monuments in honour of God Vishnu far away in Cambodia and Indonesia.

Dr Uday Dokras and Srishti Dokras

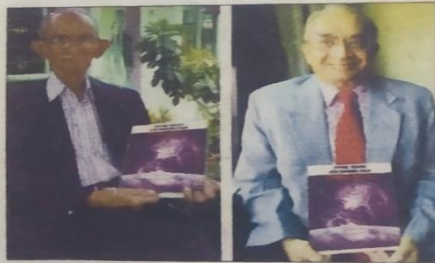
"How many of us know that Garuda, the giant bird which is Lord Vishnu`s vehicle is the national symbol of Thailand, holds a *Trishul* in its hands and name of the national air carrier-is Garuda Airways or that the national flag of Cambodia depicts a Hindu temple on it - The Angkor Wat. Even fewer know that the Cham people of Vietnam are Brahmins or that the king of Thailand has Hindu priests performing all religious rituals in spite of being a Buddhist - as a national tradition," said Dr Dokras.

Devrajas or God King and Raja Dharma or Hinduism flourished in South-East Asian countries for more than 400 years and constructed the largest Hindu temples in the world. These 3 volumes trace the significance and history of these developments of how the Hindu religion spread to these countries, its expediency in making the Kings of these nations Devrajas, under Hinduism, in order to better lead their people, informed Dr Dokras.

The introduction to the book has been written by famous British Artist Kenny Perry, who is associated with Dr Uday Dokras' books and has contributed original digital art to adorn this picturesque trilogy full of more than 300 art works.

Prof Deshpande launches two books of Dr Dokras

PROF S A Deshpande, former Head of the Department of Architecture, Visvesvaraya National Institute of Technology and President of the Indian Institute of Architects, e-launched two books of Dr Uday Dokras.

Prof Deshpande appreciated Dr Dokras for writing three books in three months during lockdown. While e-launching the books, he said, "Time will always go by. What distinguishes us is how we use that time for our benefit."

(Left) Prof S A Deshpande and Dr Uday Dokras releasing books.

The two new books by Dr Uday Dokras, who has done PhD from Sweden and is son of former Principal VRCE Vasant Dokras, are about 'Hinduism -- Celestial Mysteries of the Borobudur Temple' and 'Mysteries of the Holy Flower Lotus'. Dr Dokras was once consultant for Gorewada Zoo. Presently, he works for Kettle & Brew Beverages, Pune as online management consultant. Earlier, on April 31, Dr Dokras had launched the book Hindu Temples of Bharat & Cambodia. Hindu temples and symbolism has existed for several years. It is a fascinating subject that needs to be brought to light for all interested in the mysteries of Hinduism. All of Dr Dokras' 10 books are available gratis for reading on academia.edu and https://www.yumpu.com/en/human2resources, stated a press release.

Some of my books

Ancient Maritime Trade of Tamilians and Kalingans
Dr. Uday Dokras
Ph.D. Stockholm University, SWEDEN
Indo Nordic Author's Collective, Stockholm SWEDEN and Nagpur INDIA

GEM & RUDRAKSHA VAASTU

Giving Design to the Lord's Creation

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Unravelling the

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Dr Uday Dokras-Srishti Dokras

Indo Nordic Author's Collective

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SCIENTIFIC BORUBUDUR

Some of the 70 BOOKS BY DR UDAY DOKRAS

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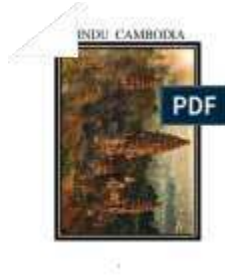
Dr. Uday Dokras

Tamil People as Traders and Voyagers

The Cambodian Trilogy

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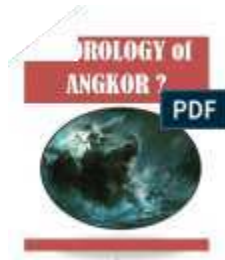

II.HYDROLOGY of ANGKOR

ANGKOR is known as a Hydraulic city- full or canals and river and waterways. It is this water system they say that brought the downfall of this intrinsic kingdom. But is that TRUE?

III.ENTER...... THE KINGDOM THAT VANISHED- Angkor

Building Materials of the Hindu Temple

Indo Nordic Author's collective, 2021

In depth study of how Building Materials of the Hindu Temple was used in India,Indonesia and Cambodia and India

The Art & Architecture of THE GOLDEN TEMPLE COMPLEX, AMRITSAR

Mathematics in Temple Designs

Jain ART

Book on Jain Art and Iconography

Jain Temples- Part I -Complete Compendium-Book I

A to Z of the architecture, Design,Cosmology,Philosophy of Jain temples in

Jain Temples II

DEVELOPMENT OF THE ARCHITECTURE OF JAIN TEMPLES AND THE ACTUAL PHOTOGRAPHS(ORIGINAL) OF 3JAIN TEMPLES of Nagpur

DWARKA- CELESTIAL MYSTERIES of the Lost CITY of KRISHNA

TIRUPATI TEMPLE Book part I

TIRUPATI TemplePart II

Vahanas- the vehicles of Hindu Gods

Vahanas- the vehicles of Hindu Gods. Animals in Hinduism. demi Gods

SATYANARAYAN PUJA-The Complete Compendium

Satyanarayan Puja or 9 Graha Puja(a puja of 9 planets) has been performed by most Hindus not only now but for 1,000's of years.

MAHALAXMI Puja

Hindu Goddess MAHALAXMI Puja

ARCHITECTURE OF PALESTINE

Palestine my Love

Palestine my Love is about the culture arts and crafts of palestine so we recognize it as a entity that is fighting for recognition of not only its legitimacy but also its cultural heritage

QUINTET (5) BOOKS ON MANDALA

Unravelling the MAZE of the MANDALA BOOK I

First part of a two book treatise on MANDALAS. This introductory phase introduces mandalas

Maze of MANDALA BOOK II

Advanced Mandala routine for those who want to know more about MANDALAS

Mandala BOOK III on Nakshatra

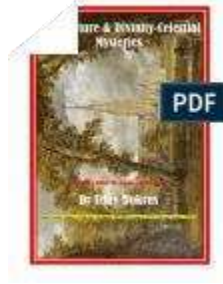
BOOK IV MANDALA & ARCHITECTURE

The Use of Mandalas in Building Temples and Modern Buildings

Book V on Mandala of the Oriental Kingdoms

Islamic Architectureal Arts of of Imam Ali's 2 Shrines

Hindu Gods in Scandinavia

Did the Hindu Gods originate or live in Scandinavia once? Find out

Book on Divinity and Architecture

What is divinity? How has man tried to harness architecture to create magic in space

Virat Hridaya Padma-sthalam CHIDAMBARAM Temple -Celestial Mysteries

This book is about a mysterious and revered tempe built by the Chola Kings of South India 2000 years ago

T2- Temple Tech. A Book

How are Hindu temples built and the technology that follows this craft. From A to Z Complete Guide.

Rendezvous with Sri RAM Portfolio of Temple Art by Srishti Dokras, Architect
Special section on Hindu Foods by Karan Dokras, Product Guru

Best Foot Forward

The story of Footwear through the ages up to COVID times

Hindu Temple Panorama-Celestial Mysteries

A to Z of Temples. A total Panoramic View of design and architecture of Hindu temples in 350 page...

DUOLOGY (2) on JAINISM

Ativir

ATIVIR means Very Brave and is the name given to Lord Mahavir the 24 th Saint(TIRTHANKAR) Contains rare translations of the Dialogue of the Mahavir with his disciples called GHANDHARVAVAD

Vardhaman-वर्धमान

IThis book is about Jainism- written by a non-

THE TRILOGY(3) on DEVRAJA The God kIngs of Khemer

Book I DEVRAJ- The God Kings of Indo China-Cambodia.

This is the first Book of a Trilogy that traces the growth of Hinduism in South East Asia.

BOOK I I DEVRAJA- The Great Civilizations of South East Asia -HINDU Era

How Hinduism reached Cambodia and how the Hindu Kings called Devraj Built these magnificent structures

Devraja BOOK II I Devraja and Raj Dharma God King and Kingly Religion The HINDU Era of Great Civilizations of Khemer

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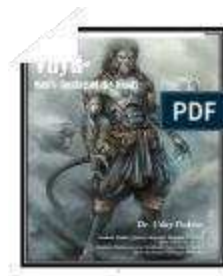
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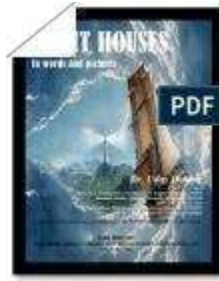
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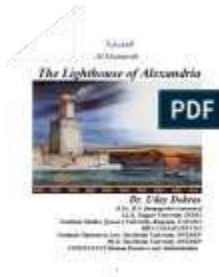
BOOK Architecture of the Lighthouse of Alexandria-BOOK

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The lighthouse was built on an island off the coast of Alexandria called Pharos. Its name, legend

Cosmology of lotus

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Thesis of the Author for the degree of Doctor of Law

Stockholm University, SWEDEN 1990

Dr Dokras(LEFT) with Dr Harish Rathi leading medical practitioner of Nagpur,India

Monarch of the Khmer Empire

JAYAVARMAN II

DR Uday Dokras

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